

OVERSIGHT OF AND WITHIN THE DEPARTMENT OF DEFENSE:
IS IT BECOMING COUNTERPRODUCTIVE?

THESIS

Thaddeus G. Knue, Captain, USAF

AFIT/GSM/LSG/915-16

This document has been approved for public release and sale; its distribution is unlimited.

DEPARTMENT OF THE AIR FORCE

92-04897

AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio



AFIT/GSM/LSG/91S-16



OVERSIGHT OF AND WITHIN THE DEPARTMENT OF DEFENSE: IS IT BECOMING COUNTERPRODUCTIVE?

THESIS

Thaddeus G. Knue, Captain, USAF

AFIT/GSM/LSG/91S-15

Approved for public release; distribution unlimited

The views expressed in this thesis are those of the authors and do not reflect the official policy or position of the Department of Defense or the U.S. Government.



| Accesi | on For | | | | | | |
|---------------------|-------------------------|--|--|--|--|--|--|
| DHC | obaced [] | | | | | | |
| By Dist ibution(| | | | | | | |
| Anality Cooss | | | | | | | |
| Dist | Avail and or Special | | | | | | |
| A-1 | | | | | | | |

OVERSIGHT OF AND WITHIN THE DEPARTMENT OF DEFENSE IS IT BECOMING COUNTERPRODUCTIVE

· THESIS

Presented to the Faculty of the School of Systems and Logistics

of the Air Force Institute of Technology

Air University

In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Systems Management

Thaddeus G. Knue, B.S.
Captain, USAF

September 1991

Approved for public release; distribution unlimited

Preface

This research was the result of the concern expressed by many senior Department of Defense personnel about oversight of and within the Department of Defense. The purpose of this study was to analyze through a single case study the amount of oversight that was occurring at a system program office within Aeronautical Systems Division and determine if the perception of oversight being excessive to the point of becoming counterproductive was legitimate. The results of this study should be useful to those parties interested in exploring the determination if the perceived need for oversight reform is legitimate.

In performing this research I would like to thank the C-17 System Program Office for their dedicated support in aiding me in all facets of the research. Secondly, a special thank you to my thesis advisor, Lt Colonel John Shishoff for his help and guidance in an area I have learned a great deal about in the last fifteen months. And finally, I wish to thank my wife and daughter, Naomi and Brittany. Without their strength, patience, and motivation, this project would have never reached fruition.

Thaddeus G. Knue

Table of Contents

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | Page |
|------|----|----|----|-----|-----------|-------|-------|--------------|------|-------|------------|-------|-----|--------|-----|---------|----|-----|-----|---------|-----|-----|-----|-----|---|---|---|------------|
| Pref | ac | е | | • | | • | | | • | | | | | | | | | | • | | | | • | | | | | ii |
| List | 0 | £ | Fi | .gı | ıre | es | | | | | | | | | | | | | | | | | | | | | | v |
| List | 0 | £ | Ta | ıbl | es | 3. | | | | | | | | | | | | | • | | | | | | | | | vi |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abst | ra | ct | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | ٠ | • | • | • | • | vii |
| I. | | In | tr | od | luc | et: | i or | 1 . | ٠ | • | • | | • | • | | | | | • | | • | | • | • | • | | • | 1 |
| | | | | | Cł | a | ote | er | Ov | rer | vi | .ew | 1. | | | | | | | | | | | | | | | 1 |
| | | | | | Ge | יחי | > | 1 | T | S 1 1 | ۹۱ | | | | - | • | - | | • | - | - | - | | | | - | - | 1 |
| | | | | | G, | | i | : ; , | ~ T |) ~ c | h | _~ | • | • | • | • | • | • | • | • | • | • | • | • | • | • | • | 2 |
| | | | | | T. | , – , | ~ ± 1 | | - L | | | . CII | | | • | • | • | • | • | • | • | • | • | • | • | • | • | 3 |
| | | | | | | | | | | | | | | | | | | | • | | | | | | | | | |
| | | | | | Sc | oj | рe | 01 | F | les | ea | ırc | h | • | • | • | • | ٠ | • | • | • | • | • | • | • | • | • | 4 |
| ΙI | • | В | ac | kg | r | uı | nd | oi | E t | he | F | rc | bl | eπ | / L | it | er | at | ur | e | Rε | i v | .ev | J. | | | | 6 |
| | | | | | C ት | 121 | nt e | 3 r | 0.1 | , e r | · 17 i | AL | | | | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | FI | 11. | . 02 | , O <u>I</u> | ATTA | |) <u>L</u> | ~ | e. | 21 | 911 | L | • | • | • | • | • | • | • | • | • | • | • | 6 |
| | | | | | O | re: | cs : | g | זנ | an | a | Co | nt | ro | Ţ | : | • | ٠. | • | ٠ | • | • | • | • | • | • | • | 7 |
| | | | | • | | | | | | | | | | | | | | | em | | | | | | | | | 8 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | E | e i | fc | rm | an | ce | | | | | | | | | | | | | | | | 10 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| | | | | | | | N | lar | 120 | em | en | Ť | Ċ | nt | 20 | 1 | in | Ē | ט ט | • | • | • | • | • | • | • | • | 15 |
| | | | | | | | ř | 101 | , u | 1 - | . n n | . i ~ | ~ | , 11 C | | • | | | ,00 | • | • | * | • | • | • | • | • | 16 |
| | | | | | | | |) O L | , , | ı a | 1111 | 7 11 | 9 | • | • | • | • | • | • | • | • | • | • | • | • | • | • | 16 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 20 |
| | | | | | Ov | eı | si | .gł | ıt | in | W | ea | po | ns | Α | cq | ui | si | .ti | on | | | | | | | | 21 |
| | | | | | Le | gi | sl | at | iν | е | Οv | er | si | gh | t | | | | | | | | | | | | | 21 |
| | | | | | | • | | er | er | al | Α | cc | ou | n t | i n | α | Οf | fi | ce | | _ | | | _ | _ | _ | _ | 26 |
| | | | | | T n | ST | 200 | : † i | ΩD | 0 | VA | rs | ia | h+ | | 9 | | | | • | Ť | | Ť | | - | • | • | 28 |
| | | | | | | | Г | 101 | a r | + m | en | + | _ y | ח | of | • en | • | . 1 | 'n. | · na | ~+ | • | • • | !an | | 1 | • | 29 |
| | | | | | 7. | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | ηU | ıa ı | | ٠٠ | · er | 21 | 911 | | ٠, | : . | ٠. | • | • | • | • | • | • | • | • | • | • | • | • | 30 |
| | | | | | | | P | 11 r | r | or | ce | A | ua | 1 t | A | ge | nc | y | | • _ | • _ | • | • | • _ | • | • | • | 32 |
| | | | | | | | | | | | | | | | | | | | er | | | | | | | | | |
| | | | | | Cu | rı | en | it | Tr | en | ds | i | n | Οv | er | si | gh | t | • | | | | | | | | | 33 |
| | | | | | Co | nc | :lu | si | on | | • | | | | | | | • | | • | | | | | | | | 34 |
| III | Ι. |] | Me | th | od | o l | .og | У | | | | | | | | | | | | | | | | • | | | | 37 |
| | | | | | a٤ | | | _ | | • | | | | | | | | | | | | | | | | | | 2 7 |
| | | | | | | a E | | E . | υV | er. | Vl L | ₩. | • | • | • | • | • | • | • | • | • | • | • | ٠ | • | • | • | 37 |
| | | | | | | | | | | | | | | | | | | | • | | | | | | | | | 37 |
| | | | | | | | | | | | | | | | | | | | Εv | | | | | | | | | 42 |
| | | | | | Da | tа | L D | is | pl | a y | | | • | | | | | | • | | | | | | | | | 46 |
| | | | | | Co | no | :lu | si | on | D | ra | wi | nq | /v | er | if | ic | аt | io | n | | | | | | | | 47 |

| | | | | | | | | | | | | | | | | | | | | Page |
|----------|------|---------|-------|-------|------|------|------|-------|-----|-----|----|-----|----|------|----|-----|----|---|---|------|
| | | Summa | ary | | | • | | • | | | • | | | | | | • | • | | 48 |
| IV. | Pres | sentat | ior | of | Re | su | lts | • | | | | | | • | | | | | • | 49 |
| | | Chapt | er | Ove | rvi | Lew | | | | | | | | | • | • | | | | 49 |
| | | Inves | stic | ati | ve | Qu | est | ion | on | e. | | | | | | | | | | 49 |
| | | Inves | | | | | | | | | | | | | | | | | | |
| | | Inves | | | | | | | | | | | | | | | | | | |
| | | Inves | | | | | | | | | | | | | | | | | | |
| | | Inves | stic | ati | ve | Ou | est | ion | fi | ve | | į | | Ī | • | | Ī | i | • | 57 |
| | | Inves | | | | | | | | | | | | | | | | | | |
| | | 1110.00 | , , , | | • • | Ž cr | | - 011 | 21 | Α. | • | • | • | • | • | • | • | • | • | |
| VI. | Cond | clusio | ns | and | Re | eco | mme | nda | tio | ns | | | | | | | • | | | 7.5 |
| | | Intro | duc | tio | n. | | | | | | | | | | | | | | | 7.6 |
| | | Concl | | | | | | | | | | | | | | | | | | |
| | | Refor | | | | | | | | | | | | | | | | | | |
| | | Recon | men | dat | ior | 15 | for | ਸ਼ਾ। | rth | ۵۳ | Re | | ar | · ch | | • | • | • | • | 30 |
| | | Final | | | | | | | | | | | | | | | | | | |
| | | rinai | | mune. | 1163 | • | • • | • | • • | • | • | • | • | • | • | • | • | • | • | G L |
| Appendix | A: | List | of | Ove | rsi | gh | t A | cti | ons | ٠ | | • | | | | | | | | 83 |
| Appendix | В: | Timel | ine | of | 01 | er | sigl | ht i | Act | ior | ıs | • | | | • | | | | • | 38 |
| Appendix | c: | Manho | ur | and | Dυ | ıra | tion | a f | or | Eac | h | Аg | en | су | Α | .ct | ic | n | | 94 |
| Appendix | : D: | Summa | ry | for | Ea | ch | Age | enc | y O | ver | si | .gh | t | Αc | ti | on | | | • | 98 |
| Bibliogr | aphy | · | • | | | | | • | | ٠ | • | | • | | | | | | • | 178 |
| Vita | | | | | | | | | | | | | | | | | | | | 180 |

List of Figures

| Figu | ure | Page |
|------|---|------|
| 1. | Organizational Control Cycle | 8 |
| 2. | Strategic Management Structure | 11 |
| 3. | Governmental Organizational Control Cycle | 15 |
| 4. | Planning, Programming, and Budgeting System | 16 |
| 5. | Oversight Concentration of and Within the Department of Defense | 22 |
| 6. | Components of Research Analysis | 42 |
| 7. | SPO Manhour Oversight Summary | 53 |
| 8. | SPO (Months) Duration Oversight Summary | 55 |
| 9. | Oversight Directing Agencies | 56 |

List of Tables

| Tabl | Le . | | | | Page |
|------|---|---|---|---|------|
| 1. | Control Strategies and Associated Requirements. | • | | • | 13 |
| 2. | Oversight Techniques and Respective Purposes | • | | | 25 |
| 3. | Duties and Responsibilities of the Inspector General of the Department of Defense | | | • | 30 |
| 4. | Research Methods | | | • | 37 |
| 5. | Consideration in Research Method Determination. | | | • | 38 |
| 6. | Research Methods and Associated Strategies | | | • | 38 |
| 7. | Quarterly Summary of Oversight Actions | | • | | 51 |
| 8. | Duplication of Oversight Actions | | | | 58 |

Abstract

Oversight of and within the Department of Defense (DoD) has become so intense and detailed that the perception of senior Department of Defense personnel is that oversight is now detracting from the ability of system program offices (SPO) to focus on fielding new weapon systems which achieve the government's requirements of performance, schedule, and cost. This study researched this assertion by exploring oversight and control of and within the DoD, and specifically through a single unique case study of the C-17 SPO. The three main sources utilized in gathering and analyzing data were archival records. interviews, and documents. Data gathered indicated oversight has been perceived by senior SPO personnel to have become counterproductive in three areas, overlap in scope, duplication in data requests (oral and written), and overall excessiveness. The C-17 has expended 2,035 manhours in response to 72 actions. Some form of overlap was identified in 25 of the 72 actions.

OVERSIGHT OF AND WITHIN THE DEPARTMENT OF DEFENSE: IS IT BECOMING COUNTERPRODUCTIVE?

I. Introduction

Chapter Overview

This chapter introduces basic Department of Defense procurement issues of interest, the relation of oversight to those issues, and the importance of oversight of and within the Department of Defense. Secondly, this chapter identifies the specific problem program directors of major system program offices within the Department of Defense face today. This section is then followed by a list of investigative questions used as a guide to address this research area. And finally, it concludes by discussing the scope of the research while giving a general overview of the chapters to follow.

General Issue

The Department of Defense "implements over 15 million contracts each year (52,000 contracts each day), while spending around \$300 billion" (Gansler, 1989:4). "Even if it were 99.99 percent perfect in its procurement actions, it would still commit over 1500 errors or abuses per year" (Gansler, 1989:4). These contracting actions range from buying every day items such as paper and pencils to fielding major weapon systems.

While major weapon system contracts amount to less than 1% of all procurement actions, they account for over 50% of defense procurement dollars (Fox, 1984:14). As a result, it would be ludicrous to think the Department of Defense could spend \$300 billion per year without Congress and the Department of Defense being keenly interested in how the money is being spent. Additionally, headlines such as "Defense Department Auditors Uncover \$789 Million in Contractor Overpricing," combined with massive budget deficits and the outbreak of peace are causing Congress and the general public to become even more critical with regards to defense spending, particularly in relation to weapon systems acquisition. As a result, oversight of and within the Department of Defense is increasingly being emphasized. This thesis will analyze how much governmental oversight is being accomplished with respect to a selected System Program Office (SPO) within Aeronautical Systems Division (ASD), and in the expert opinion of senior program managers within the SPO, whether it has reached the point of being counterproductive.

Specific Problem

Oversight of the Defense Department is an important and essential Congressional responsibility. However, over the past 30 years oversight has become so intense and detailed that the perception of senior Department of Defense personnel is that Program Directors within the various SPOs are increasingly

being diverted from spending their time managing multi-billion dollar programs to constantly interfacing with auditors, inspection teams, and numerous congressional committees, subcommittees and staffs. The specific problem that the major SPOs are faced with can be summarized as follows: Has oversight, which includes all of the administrative requirements of interfacing with various oversight agencies, become so burdensome that it significantly detracts from the ability of system program offices to focus on fielding new weapon systems which achieve the government's performance, schedule, and cost requirements?

Investigative Questions

To address the above research question, data was collected and analyzed to answer the following questions:

- 1. How many audits, inspections, and congressional inquiries were conducted for the entire program to date and what was the timeline of each action in the case study SPO?
- 2. How many manhours are being expended in preparing for, interfacing with, reviewing the findings of the various agencies, and resolving issues resulting from the those actions? What is the average manhours per actions?

- 3. What is the total duration of the audits, inspections, and congressional inquiries? What was the average duration per oversight action?
- 4. What agency or committee initiated the above oversight actions?
- For the same information whether it be verbal (interview) or written (documents)?
- 6. Through the documented facts gathered in the above questions, do the experts (senior program managers) believe the amount of oversight to be excessive? And, if so, why?

Scope of the Research

In accomplishing the task of researching oversight and its perception of having become burdensome to the point of being counterproductive, the investigator in chapter one initially provided information to enable the reader to understand the focus of the research effort. In chapter two the concept and background of oversight will be reviewed. This will include

oversight in both a general sense and specifically how it pertains to the Department of Defense. The research will then turn to identifying the agencies involved in oversight both of and within the Department of Defense while also discussing current and future trends. Chapter three will then discuss the methodology that will be employed in answering the above investigative questions, a single case study of the C-17 System Program Office within Aeronautical Systems Division. System Program Office is a unique SPO in the sense that they are under the guidance of the Defense Enterprise Program. The investigator will essentially be exploring an area where many assertions have been made in a holistic sense, but where very little specific research has been employed in regards to system program offices. In chapter four, the focus will then turn to the analysis of oversight within the C-17 System Program Office while also providing results based on that analysis. analysis will consist of the collection and reduction of evidence, the displaying of that evidence, and results based on the analysis. And finally, chapter five will consist of conclusions and recommendations based on the results, recommendations for further research, and an overall conclusion to the research.

II. Background of the Problem/Literature Review

Chapter Overview

This literature review provides the initial background information for analyzing how much governmental oversight is being accomplished in a system program office, and whether it has gotten to the point of being counterproductive. The chapter first describes what oversight is and how it fits into a management control system that provides the framework for effective organizational accomplishment. Secondly, this chapter reviews the concepts and levels of control, along with the general philosophies that are utilized at each respective level. The review then provides a description of the agencies within the government that focus on oversight in relation to the Department of Defense. Finally, the chapter provides an overview of current and future trends in oversight of defense procurement.

Philosophy of Oversight

Oversight is vital in large complex organizations to assure that all departments, to include the individuals within those departments, are working toward the common goals and objectives of that organization. Many people view these overseers as the enemy and have an "us versus them" mentality (Reed, 1989:21). They see these overseers as individuals on "witch-hunts" out to destroy careers. The theoretical

objective of oversight; however, is to observe particular programs or operations and determine where improvements can be made. Oversight should be more of an attention directing function rather than a finger pointing exercise. The necessity of oversight within the Department of Defense can be described by a statement from the Secretary of the Air Force, Donald B. Rice, "Nobody can spend \$30 billion of taxpayers money like Systems Command does and not have politicians interested in how the money is spent" (Canan, 1990:63).

Oversight and Control

Oversight considerations within our government can be traced back to the writing of the constitution. The three branches (judicial, legislative, and executive) were created in such a way that they would be dependent on one another. This was accomplished for the express purpose of preventing any one branch from becoming all powerful. John Adams counted eight specific balances that enabled each branch to "oversee" the other two (Murphy, 1984:660). Thus, our constitution institutionalized oversight as an integral part of our system of governing. A majority of the oversight accomplished today that is of interest to this research is that of the legislative branch, i.e., congress, overseeing the executive branch; particularly defense.

Management Control Systems. Oversight is part of the system which contributes to effective organizational control. Reporting on organizational activity contributes to control and is the primary responsibility of all oversight agencies. This relationship is made more understandable by examining the components of a organizational control system.

<u>Planning and Acting</u>. Conceptually, an organizational control system includes three basic elements: the operating process (planning and acting), performance (measuring and monitoring), and feedback. It can be illustrated in Figure 1.

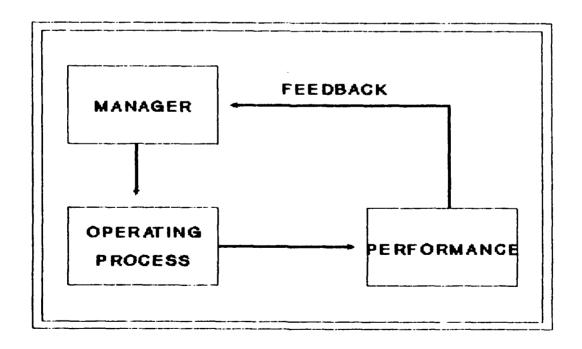


Figure 1. Organizational Control Cycle (Horngren and Foster, 1987:3)

The operating process is commonly referred to as the planning and action phase. It includes the activities of setting and disseminating organizational goals, predicting potential results under various methods to achieve those goals, and establishing the organizational structure which will be utilized in achieving those goals (Horngren and Foster, 1987:3). There are three basic levels of planning within an organization; strategic, tactical, and operational.

Strategic planning focuses on the overall organization from the perspective of the upper levels of management. Strategic planning defines the mission of the organization, to include those broad statements regarding its purpose, philosophy, and goals while determining guidelines for directing, organizing and controlling strategic related decisions. It is basically the determination of upper management as to the business that the organization will be in. These planning strategies will typically span a 15-20 year time period. At the tactical level, the managers translate the general statements of direction and intent generated at the upper levels of management (strategic plan) into concrete, functional objectives and strategies for their respective divisions or business units (Pearce and Robinson, 1985:8). The tactical plan is basically what assets, policies, etc., management feels is necessary to compete in the business previously determined in the strategic plan. The final level

is the departmental or operational level. These are typically short-term strategies covering a one to two year time period, and focus on the organizations individual departmental goals and plans to meet the functional objectives and ultimately carry out the strategic plans intent and goals. In summary, it is how the department will operate within the guidelines established by the tactical plan and what must come on line to ultimately be in line with the business decisions from the strategic level.

Performance. Once planning has been accomplished, control becomes the essential focus to attaining the organizational goals. The first half of the function of control can be defined as, "The action that implements the planning decision..."

(Horngren and Foster, 1987:3). This includes many of the classical functions of management; organizing, staffing and directing the operations, which can be summarized as implementing the plan. The second element of control embraces the result of that implementation, the system's performance. Oversight begins to take form in the area of performance. In this element, the focus of control now becomes the evaluation of the actual results of the activity in comparison to the plan.

Like planning, control can be delineated into three levels: organizational or strategic control, mid-management or

divisional (tactical) control, and supervisory or operational control.

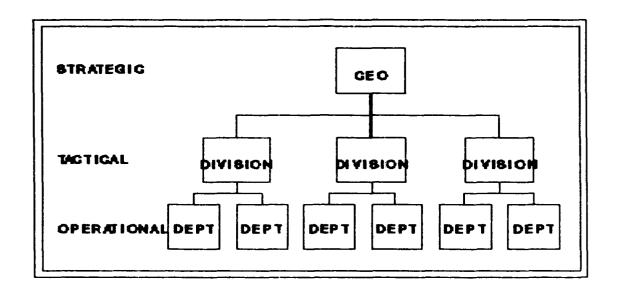


Figure 2. Strategic Management Structure

Strategic control is the primary concern of the top levels of management. Strategic control typically focuses on "factors related to external forces and internal performance that are essential to the success of the strategy" (Pearce and Robinson, 1985:361). Since the planning is of a futuristic sense, the strategic managers must evaluate, given limited information, whether the organization is progressing as they envisioned.

The management control system supports all levels of the organization, but much of the control is mainly focused on the division level (mid-level management). This part of the system consists "of the written records and procedures that supplement overall bureaucratic control" (Daft, 1986:322). This includes

formal planning, data gathering, and transmission systems that provide organizational management with the information on divisional performance. Daft divides this system into four categories, which include the "operating budget, periodic statistical reports, performance appraisal systems and standard operating procedures" (Daft, 1986:320). These four categories enable both middle and upper level management to monitor and influence the different departments. The operating budget is used to set financial targets and record actual costs, while periodic statistical reports are used to evaluate and monitor non-financial performance (Daft, 1986:320). Performance evaluation systems are used to evaluate managers and their specific departments. These are accomplished in the form of appraisal reports, inspections and audits. The final category is that of standard operating procedures. These are the traditional rules and regulations that must be employed when accomplishing a task or correcting a variance (Daft, 1986:320).

The control strategies that have been discussed thus far have dealt exclusively with the middle and upper levels of management oversight. The final control strategy focuses on the performance of departments within the overall organization, down to the individual employees directly responsible for carrying out the activities necessary for meeting upper management's goals. This is referred to as supervisory control. Supervisory control focuses on two strategies: output control and behavioral control. Output control utilizes

written documents that outline the performance or productivity of the department or individual. Behavioral control on the other hand is based on personal observation. This type of control is utilized when outputs are not easily measured (Daft, 1986:327).

Within this hierarchy of control, a combination of three strategies are incorporated to carry out policy. Daft defines these strategies as: clan, bureaucratic, and market control strategies. The requirements for each respective strategy can be are illustrated in Table 1.

TABLE 1
CONTROL STRATEGIES AND ASSOCIATED REQUIREMENTS

| Туре | Requirements |
|-------------|---|
| Market | Transactions, Input, Output |
| Bureaucracy | Rules, standards, hierarchy |
| Clan | Tradition, shared values and beliefs, trust |

(Daft, 1986:318)

Clan control is typically utilized where there is shared values, commitment, traditions, and shared beliefs in controlling organizational behavior. It is based on a great deal of trust among the organization's members (Daft, 1986:323). Clan control is typically utilized at the upper

levels of management (strategic control level), but can be seen at every level of the organization. As a result of the great trust, very little formal control measures are necessary.

Bureaucratic control is defined as "the use of rules, policies, hierarchy of authority, written documentation, standardization, and other bureaucratic mechanisms to standardize behavior and assess performance" (Daft, 1986:318). Bureaucratic control to a large extent sets the boundaries for acceptable ranges of behavior. It also is utilized to some degree in virtually every level of the organization, but may apply to the greatest degree on the managerial or tactical level of organizational activity.

The final strategy in terms of control is that of marketing control. Marketing control is utilized at the individual transaction level. It is used to measure output and productivity in daily transactions in comparison to the goals of the department or organization (Daft, 1986:317-18). Again, it is used at every level of the organization, but it is primarily focused on the individual or departmental performance level.

Feedback. The third and final stage of the management control process involves communicating findings to management. This communication is feedback. Feedback concerns both the activities of the operating and performance processes (work activities and performance measurement) and organizational

management. Feedback, in the form of reports, studies, and other forms of data, helps indicate to upper management how and where to improve the continual sequence of predictions and decisions within the planning and operating processes. It is designed to reward or correct performance activities in order to accomplish the established organizational goals. In summary, it designed to help upper management make corrections in either plans, i.e., the operating process or work activities or performance, i.e., modifying current performance to bring all activities into alignment (Horngren and Foster, 1987:3).

Management Control in DoD. The organizational control cycle within the Department of Defense (DoD) takes a similar approach and is illustrated in Figure 3.

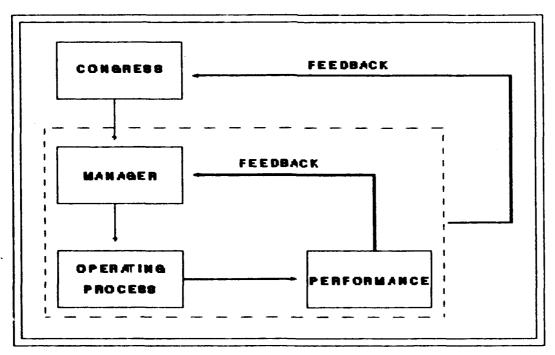


Figure 3. Governmental Organizational Control Cycle (Shishoff, 1991)

<u>DoD Planning</u>. The three levels of planning discussed earlier are found in the planning portion of the control system within the Department of Defense, the Planning, Programming, and Budgeting System (PPBS). This system is illustrated in Figure 4.

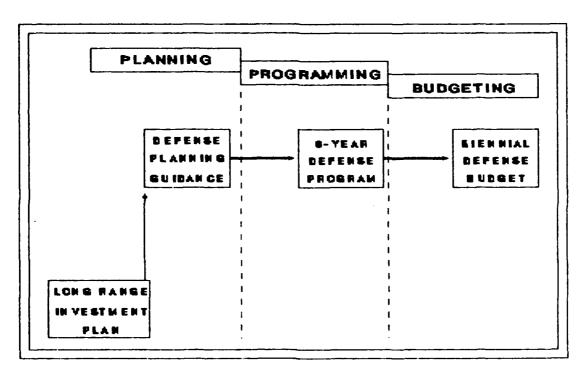


Figure 4. Planning, Programming, and Budgeting System (Department of Defense Directive 5000.1, 1991:21)

The first element is strategic planning. In the DoD it is known as the long range investment plans. It is primarily concerned with the military requirements projected to be needed in maintaining national security. Planning from the Department

of Defense's perspective is broad, long term, and should not be monetarily constrained. Its functions include,

Collecting intelligence about the military capabilities and political intentions of foreign nations, evaluation of the threat to our national security, developing strategies to meet the threat, and devising force levels to support the strategies. (Defense Systems Management College: 2.1a)

The strategic planning is culminated with the issuance of the Defense Planning Guidance (DPG) document. The DPG is the basis for which the Six-Year Defense Plan (SYDP) is developed.

The programming element is the next stage DoD planning stage. The purpose of the programming phase is to develop the SYDP from the guidance contained in the DPG. It is designed to "...link national policies, strategy, and objectives to specific forces and major programs, including acquisition programs" (Department of Defense 5000.1, 1991:23). The programming portion of the planning cycle is culminated with the issuance of the Program Decision Memorandum. This in turn provides the foundation in determining the two year operational budgets (Department of Defense 5000.1, 1991:23).

The final phase of planning is budgeting which is developed on a biennial basis. Each DoD component submits budget proposals, i.e., Budget Estimate Submissions, to the DoD Comptroller. A series of reviews and hearings are conducted by representatives of the Comptroller and the Office of Management and Budget. The ultimate decisions in regards to the budget are made by the Secretary of Defense and are documented in the biennial budget request submitted to the

President for approval (Department of Defense 5000.1, 1991:24-5).

DoD Performance. The second element in the control process in the Department of Defense can also can also be broken down into the three levels of control (strategic, management and departmental), while also incorporating a combination of the three strategies (clan, bureaucratic, and marketing) at each level. In terms of organizational control within the DoD, bureaucratic and marketing control are utilized to ensure strategy related decisions and actions of the overall organization remain in line with one another; however, as expected, a majority of the focus within upper levels of the DoD is that of strategic planning and the utilization of the clan control strategy. This is also true at the Congressional level. For example, in looking at the traditions of the senate or congress, it may be very difficult to understand the information systems within either the House or Senate. Within a clan organizational strategy, the objectives or vision often matures as a natural extension of social interaction. generally an unstructured environment with some rules and quidelines.

Management control systems within the DoD also utilize the three strategies in carrying out the defense objectives of Congress and DoD. The clan strategy is used at the executive level of the Air Staff, command or product division to

determine the vision or mission of their respective organizations while marketing strategies are utilized in carrying out those policies. The main strategy that is incorporated at the management control systems level is that of bureaucratic control. In large complex organizations it is the most effective manner in ensuring to upper management that the objectives of the organization are being accomplished. In summary, they are the traditional rules that must be employed when accomplishing a task or correcting a variance (Daft, 1986:320). The agencies directly responsible for control processes at this level are the Air Force Systems Command Inspector General (AFSCIG) and Air Force Audit Agency (AFAA).

Regarding supervisory control of performance, the majority of the focus is on the system program office (SPO). It is the control system which is under the direct authority of the program director within the respective SPO. Again, it employs the three strategies above in determining the overall mission of the SPO, and the boundaries and guidelines that will be employed in striving to meet those goals and objectives. The majority of the strategy focus at this level is that of marketing control. It focuses on the performance of individual employees in carrying out the activities necessary for ultimately accomplishing the overall organizational objectives.

<u>DoD Feedback</u>. The third element in the control process in the Department of Defense is also utilized at all three levels (organizational, management, and supervisory). This feedback and the respective organizations responsible for its executions can also be broken down into these levels. The oversight agencies that carry out organizational control by providing feedback at the strategic level include Congress and its investigative staffs, the Government Accounting Office (GAO), and the Department of Defense Office of the Inspector General. These agencies deal exclusively with the inspection of an operation, financial system, or any other function within the organization. The agencies directly responsible for control processes at the management level are the Air Force Systems Command Inspector General (AFSCIG) and the Air Force Audit Agency (AFAA). These agencies also are responsible for the inspection of an operation, financial system or any other function within the organization. At the supervisory level a great deal of oversight control is carried out by the functional discipline, program control. Program control is responsible for "program planning, programming, progress tracking, status accounting, trend analysis, documentation, and financing. It is the nerve center through which the program director maintains management control, surveillance, and understanding of the program" (Grant, 1991:267).

Also within the hierarchy of control is upward and downward communication both within and outside the Department

of Defense. Downward communication involves the implementation of the programs funded through the Planning, Programming and Budgeting System. Upward communication within the government is used to inform upper levels of the hierarchy through reports, testimony, and other forms of data on the status of the process and reward or correct activities in the execution of the program, while also assessing necessary changes in the plan such as a new, changing, or elimination of a threat. It again is designed to help the upper levels within the government make corrections in either plans through the Planning, Programming, and Budgeting System, or program execution to bring the two into alignment. This information may be to any level within the hierarchy of the Department of Defense or the entire governmental structure, i.e., Congress.

Oversight in Weapons Acquisition

The oversight umbrella within our governmental structure can be defined to include three main areas of concentration: legislation, audit, and inspection. This is illustrated in Figure 5.

Legislative Oversight

The legislative branch, i.e., the Congress, has historically exercised the right to oversee the executive branch. From the first investigation in American history in

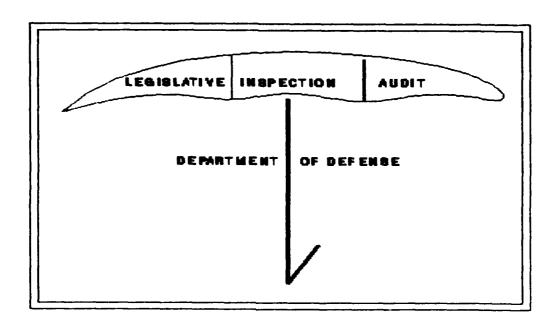


Figure 5. Oversight Concentration of and within the Department of Defense (Shishoff, 1991)

1792, in which the conduct of the government in the wars against the Indians was questioned, to the recent Iran-Contra hearings, in which the National Security Council was being investigated for covert and deceptive operations, Congress has felt oversight to be one of their most important duties. Senator Leahy has stated:

I believe that oversight is one of the Congress's most important constitutional responsibilities. We must do more than write laws and decide policies. It is also our responsibility to perform the oversight necessary to insure that the administration enforces those laws as Congress intended. (Oleszek, 1989:263)

In 1946, Congress formalized legislative oversight through the Legislative Reorganization Act of 1946. This act divided oversight functions into three areas:

- Authorizing committees were required to review federal programs and agencies under their jurisdictions and propose legislation to remedy deficiencies they uncovered.
- 2. Fiscal oversight was assigned to the Appropriations committees of each chamber, which were to scrutinize agency spending.
- 3. Wide-ranging investigative responsibility was assigned to the House Government Operations Committee and the Senate Governmental Affairs Committee to probe for inefficiency, waste, and corruption in the federal government... (Oleszek, 1989:263-64)

The purpose of the Reorganization Act of 1946 was twofold.

First, it was established to shift investigative authority from "specially created investigative committees" to newly formed standing committees. Secondly, it was designed to stabilize the review process from the sporadic hearings that arose because of major fraud cases to a "continuous watchfulness" (Oleszek, 1989:264).

Oversight within the above boundaries continued until 1970 when rules were amended in the form of granting additional oversight authority to the standing committees under the Reorganization Act of 1970. The purpose of this amended act was to "rephrase in more explicit language the oversight duties of the committees and required most House'and Senate panels to issue biennial reports on their oversight activities" (Oleszek, 1989:264).

Between 1970 and 1976, further reform took place in legislative oversight in the forms of The House Committee Reform Amendments of 1974 and the Committee System

Reorganization Amendments of 1977 (Oleszek, 1989:264). These acts and amendments have culminated in the current rules and quidelines for conducting oversight. These include:

- Standing committees are directed and permitted to undertake investigations and make recommendations in broad policy areas... Certain committees have the right to undertake comprehensive review of broad policy issues.
- The House directed its committees to create oversight subcommittees, undertake future research and forecasting, prepare oversight plans, and review the impact of tax expenditures on matters that fall within their respective jurisdictions.
- The Senate directed each standing committee to include regulatory impact statements in committee reports accompanying the legislation it sends to the floor...
- The General Accounting Office is directed to assist House and Senate committees in program evaluation and in the development of methods for assessing and reporting actual program performance. (Oleszek, 1989:265)

Congress has been forced to employ these oversight guidelines to carry out its responsibilities in a situation where the federal government has grown to a massive size in terms of manpower and dollars. One scholar wrote:

We should not deceive ourselves into thinking that the Federal Government of the future will be a shrinking violet, retreating to the modest proportions it had in George Washington's or Grover Cleveland's time. (U.S. Congress: Workshop on Congressional Oversight and Legislation, 1979:198)

As a result Congress has utilized a variety of techniques to carry out their responsibility of oversight. These techniques, along with their respective descriptions are illustrated in Table 2.

TABLE 2

OVERSIGHT TECHNIQUES AND RESPECTIVE PURPOSES

| Technique | Purpose/Description |
|-----------------------------|--|
| Hearings/Investigations | Determine how effectively federal programs are working and if committee directives are being followed and if legislative reform is necessary |
| Legislative Veto | Power to veto executive branch initiatives, decisions and regulations. Keeps administrators sensitive to congressional interests |
| Authorization process | May authorize the activities of the activities of the departments, prescribing internal organization, and regulating work methods |
| Appropriation process | Power to cut or increase funding in program areas |
| Inspectors General | Improve efficiency, eliminate fraud and waste, and discourage mismanagement |
| Informal Controls | Language in hearings, floor debate or congressional reports influence decisions of executive officials |
| Reporting Requirements | Laws requiring executive agencies to submit periodic reports to Congress and its committees |
| Ad Hoc Groups | Informal groups both in the House and Senate that focus on specific issues and programs |
| Senate Confirmation Process | The Senate has the right by the Constitution to |

scrutinize the

qualifications of any Cabinet member the president chooses

Program Evaluation

Utilizes social science and management methodologies to assess the effectiveness of ongoing programs

Case Work

Case workers are employed to aid constituents in solving individual inquiries

Oversight by Individual Members

Personal reviews to determine efficiency and effectiveness of programs

Support Agencies

This includes the General Accounting Office (GAO), Congressional Research Services (CSR), and Congressional Budget Office (CBO). (Oleszek, 1989:266-75)

The three support agencies supply congress and its committees with a great deal of their investigative data. Of the three, the main field investigator for Congress is the GAO.

General Accounting Office. Article I Section 8 of the United States Constitution reads:

The Congress of the United States shall have power to lay and collect taxes, to pay debts and provide for the common defense and general welfare of the United States ... to make rules for the government and regulations of the land and naval forces.... (Murphy, 1984.:666)

Throughout World War I, Congress was continually criticized for its failure in controlling costs in relation to defense spending. As part of a series of reforms, the GAO was established by the Budget and Accounting Act of 1921. The

GAO's primary purpose was to investigate all facets of the government pertaining to the spending of public funds.(Gupta, 1988:26) Congressman Good states:

The officers and employees of the GAO will at all times be going in the various federal agencies for the examination of their accounts. They will discover the very facts that congress ought to be in possession of and can fearlessly and without fear of removal present these facts to the congress and its committees. (Gupta, 1988:27)

The function of exclusively checking various governmental agencies on their compliance with regulations continued through World War II. With the advent of the Accounting and Auditing Act of 1950, the GAO's function was officially expanded to include that of not only the inspecting for compliance, but also for efficiency and effectiveness of the various governmental organizations (Gupta, 1988:30). A major provision in the act reads:

In determining the audit procedures and the extent of voucher checking, the Comptroller General shall give due regard to the generally accepted principles of auditing, including consideration of the effectiveness of the accounting organizations and systems, internal audit and control. (Gupta, 1988:30)

Between the 1960s and 70s, the GAO's function expanded again with the appointment of Elmer A. Staats as the Comptroller General. The expanded mission was to include not only the functions of compliance, efficiency, and effectiveness, but also to determine if program objectives were being met (Gupta, 1988:32). The Legislative Reorganization Act of 1970 authorized this expansion by stating:

the Comptroller General shall review and analyze the results of Government programs and activities carried on under existing law, including the making of cost benefit studies when ordered by either the House of Congress, or upon his own initiative. (Gupta, 1988:32)

In summary, from 1921-1950, the GAO's sole interest was in the financial compliance of organizations, from 1950-1965 their scope was expanded to include efficiency and effectiveness audits, and by 1978 the GAO was engaged in three types of oversight functions: "compliance, economy and efficiency, and program evaluation" (Gupta, 1988:31,...

Inspection Oversight

The term "Inspector General" dates as far back as the revolutionary War. The Inspectors General were for the most part drill instructors (Murphy, 1984:221). Their main purpose was in maintaining the efficiency and effectiveness of the troops and the logistics of the army. The Office of the Inspector General (OIG) was "formally" established by the Inspector General Act of 1978. A major portion of section 2, purpose; establishment, reads:

to conduct and supervise audits and investigations relating to programs and operations to provide leadership and coordination and recommend policies for activities designed (A) to promote economy, efficiency, and effectiveness in the administration of, and (B) to prevent and detect fraud and abuse in, such programs and operations ... to provide a means for keeping the head of the establishment and the Congress fully and currently informed about problems and deficiencies relating to the administration of such programs and operations and the necessity for and progress of corrective action. (U.S. Congress: Inspector General Act of 1978, 1978:1101)

Since the Inspector General's oversight function pertains only to the organization for which the OIG was established, he is responsible only to the head of that organization (U.S. Congress: Inspector General Act of 1978:1101). This is to prevent any subjectivity in the form of intermediate direction in carrying out his duties of "completing any audit or investigation or from issuing any subpoena during the course of any audit or investigation" (U.S. Congress: Inspector General Act of 1978, 1978:1101). Another important section in the duties and responsibilities of the Inspector General as it pertains to this area of research is:

... In carrying out the duties and responsibilities established under this Act, each Inspector General shall give particular regard to the activities of the Comptroller General of the United States with a view toward avoiding duplication and insuring effective coordination and cooperation. (U.S. Congress: Inspector General Act of 1978, 1978:1102)

The Act intends to prevent oversight being overdone by avoiding duplication of effort through effective coordination and cooperation between the OIG and GAO (Comptroller General). The inspector general office that pertains to this research is the Department of Defense Inspector General.

Department of Defense Inspector General. The Inspector

General of the Department of Defense was created by Public Law

97-252 dated 8 September 1982. This law is in amendment to the

Inspector General act of 1978 (U.S. Congress: Inspector

General Act of 1978, 1978:1101). The Inspector General may not

be "...a member of the Armed Forces, active or reserve...and shall be under the direct authority of the Secretary of defense..."(U.S. Congress: Public Law 97-252:751). The duties and responsibilities of the Inspector General of the Department of Defense are illustrated in Table 3.

TABLE 3

DUTIES AND RESPONSIBILITIES INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE

- Principle adviser to the Secretary of Defense for matters relating to the prevention and detection of fraud, waste, and abuse in the programs and operations of the Department - Initiate, conduct, and supervise such audits and investigations in the Department of Defense as the Inspector General considers appropriate
- Provide policy direction for audits and investigations relating to fraud, waste, and abuse and program effectiveness Investigate fraud, waste, and abuse uncovered as a result of other contract and internal audits, as the Inspector General considers appropriate
- Develop policy, monitor and evaluate program performance, and provide guidance with respect to all Department activities relating to criminal investigation programs Monitor and evaluate the adherence of Department auditors to internal audit, contract audit, and internal review reports, and audits conducted by the Comptroller General of the United States
- Request assistance as needed form other audit, inspection, and investigative units of the military departments with a view toward avoiding duplication and insuring effective coordination and cooperation

(U.S. Congress: Public Law 97-252:751-2)

Audit Oversight

The Defense audit policy guidance set forth by the Deputy Secretary of Defense states:

The purpose of internal auditing is to provide those responsible for the management at all levels with an independent, objective, and constructive evaluation of the economy, efficiency, and effectiveness with which managerial responsibilities (including financial, operational, and support activities) are being carried out. (Department of refense 7000.52, 1978:1)

This policy guidance is the result of a great deal of evolution since the establishment of the Department of Defense. Initially, internal audit organizations had no central audit guidance. As a result, the quality of the products of the dispersed agencies varied greatly due to differences in "...qualifications, experience and resourcefulness of individual auditors and the local commanders' recognition and use of audits as a management tool" (U.S. Congress: Inspector General Act of 1978, 1978:30). These audits originally only focused on the traditional audit subjects of finance and accounting functions. In 1949, the DoD recognized the need and importance of audits, and amended the National Security act of 1947. This amendment established central authority for the management of internal audit within the Office of the Assistant Secretary of Defense, Comptroller, while giving each military department comptroller the authority to conduct internal audit operations within their respective military branches (U.S. Congress: Inspector General Act of 1978, 1978:28). These new comptroller responsibilities included both audit policy and operations performed within the DoD. The two audit agencies that are of interest to this research are the Air Force Audit Agency and the Assistant Inspector General for Audit.

Air Force Audit Agency. The Air Force Audit Agency

(AFAA) is an independent operating agency that provides all

levels of Air Force management with

... independent, objective, and constructive evaluations of the effectiveness and efficiency with which managerial responsibilities (financial, operational, and support) are carried out. (Air Force Magazine, 1988:152)

AFAA is composed of two staff directorates and three line directorates. The staff directorates include Operations and Resource Management, while the three line directorates are the Acquisition and Logistics Systems Directorate, the Forces and Support Management Directorate, and the Field Activities Directorate.

AFAA has two basic types or categories of audits; centrally directed and installation level audits. Centrally directed take on Air Force wide issues. These audits typically focus on multisite efforts and are directed to the major command and air staff management levels. Installation level audits focus on base-level issues and are typically addressed to the local commanders (Air Force Magazine, 1988:152).

Assistant Inspector General for Audit. The Office of the Assistant Inspector General for Auditing (OAIG-AUD) is an oversight audit agency "...under the direction, authority, and control of the Office of the Inspector General, Department of Defense" (Air Force Regulation 11-38, 1990:1).

The assigned responsibilities of the OAIG-AUD include the planning and performing of

- Internal audits of the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff, the unified commands, and the defense agencies.
- Inter-service audits involving two or more DoD components and single service audits when the cognizant service audit activity is unable to provide the audit coverage needed.
- Quick reaction audits and other audits as the OIG, DoD, considers appropriate. (Air Force Regulation 11-38, 1990:1)

Current Trends in Oversight

Between 1960 and 1980, Congressional staffs increased more than 300 percent. Committee staff personnel rose from approximately 1000 in 1970 to 3500 in 1981. During this same time frame, the executive branch, whom Congress oversees, decreased by more than one million (Marsh, 1986:63). The number of subcommittees and their areas of responsibility grew at an even greater rate. For example, in the area of Research and Development, eleven separate committees claim oversight responsibility for defense. Staffs on these separate committees have increased from 427 in 1970 to more than 1,100 members in 1980.(Marsh, 1986:63)

The same trend is evident in terms of reports and inquiries. In 1986, The Department of Defense now generated approximately 20,000 pages of program justification while sending over 1,500 witnesses to 400 hearings. Congress

also directed 18,000 letters to Defense in this same year (Marsh, 1986:63). It was also reported that the pentagon spent approximately 245,000 hours in 1988 answering questions outlined in Congressional inquiries. (Canon, 1990:63)

According to former Defense Secretary Casper W.

Weinberger, the number of congressionally directed reports and studies has increased from 36 in 1970 to 456 in 1985. This is an increase of 1,167 percent. In this same time period, there was a 233 percent increase in the number of legislative measures directing DoD activities.(Marsh, 1986:64)

The OIG numbers are also increasing due to congressional legislation. Between the years 1972 and 1989, every cabinet department and major independent agency has initiated an IG. Additionally, even more are being established at lower levels (Sperry, 1990:59).

These trends have caused top management to be concerned.

For instance, Secretary Rice stated:

We are suffering from excessive Congressional oversight ... Congressional micromanagement has created a miasma of excessive oversight and unwarranted legislation. (Canan, 1990:63,64)

Conclusion

As a result of peace and freedom to East Germans and the perceived reduction in the Russian threat, the defense budget is being drastically reduced. For example, the Defense Management Review will reduce spending within Air Force Systems

Command by \$30 billion in the next five years. This will be accomplished by "cutting bureaucratic layers, streamlining procurement and logistics, consolidating related jobs, and the like (Canan, 1990:62)." With this reduction in defense spending, should oversight spending also decrease for the simple fact that there won't be as many programs to oversee or should the defense spending be scrutinized to a greater extent to ensure the shrinking budgets are spent in the best manner? As Rep. Ralph Regula, R-Ohio stated, Congress is "going to have to examine every function of government and say, can we do this for efficiently?" Rep. William H. Gray, III, D-Pa declared "Congress will have to categorize federal spending into 'essential vs. desirable' functions",i.e., "Those things that are not an absolute may have to be reduced significantly" (Oleszek, 1989:277).

President George Bush in his fiscal year 91 budget is stressing the importance of tightening financial control. His budget includes a ten percent increase in resources available to the IG from the present \$645 million to \$715 million. These increases will equate to approximately 437 additional staff from the present year. (Barlas, 1990:8)

This literature review explored the history of oversight, how it is changing today, and future trends regarding oversight of defense procurement spending. It can be concluded that in the past 30 years, legislation pertaining to oversight has increased dramatically. Congress is watching defense spending

in a much more detailed manner. The question now is, has it gotten to the point of being counterproductive?

III. Methodology

Chapter Overview

This chapter describes the procedures used to answer the investigative questions presented in Chapter I. The chapter also describes the population from which data were collected and the method of data collection.

Research Method

The research question is: "Has oversight become so burdensome that it significantly detracts from the ability of system program offices (SPOs) to focus on fielding new weapon systems which achieve the government's requirements of performance, schedule, and cost?" This question embraces the totality of the oversight process. This includes all of the administrative requirements necessary for an oversight agency to interface with the SPO.

There are many strategies that could be used to answer this research question. Yin divides the possibilities into five categories. These categories are illustrated in Table 4.

TABLE 4

RESEARCH METHODS

- 1. Experiments
- 2. Surveys
- 3. Archival Analyses
- 4. Histories
- 5. Case Studies

(Yin, 1984:16)

In determining which of the five methods to employ, Yin suggests three considerations. These are listed in Table 5.

TABLE 5

CONSIDERATION IN RESEARCH METHOD DETERMINATION

- 1. Type of research question being posed
- 2. Extent of control an investigator has over events
- 3. The degree of focus on contemporary as opposed to historical events

(Yin, 1984:16)

There are distinct differences between the strategies with respect to these considerations. Many of these differences are highlighted in Table 6 below.

TABLE 6
RESEARCH METHODS AND ASSOCIATED STRATEGIES

| Strategy | Form of Research Question | Control over Behavioral Events | Conter | ses on mporary ents |
|----------------------|---|--------------------------------|----------|---------------------------|
| Experiment | how, why | yes | ує | es |
| Survey | who, what, where how many, how much | no | ує | es. |
| Archival Analysis | who, what, where how many, how much | no | ує | es/no |
| History | how, why | no | no | |
| Case Study | how, why | no | у е | es |
| | | | (Yin, 19 | 84:17) |

Research questions normally follow one or more of five

categories of questions: who, what, where, how, and why. shown in Table 6, these can be broken down into two groups; "who", "what", and "where" questions which apply primarily to survey and archival analyses, and "how" and "why" questions, which apply primarily to experiments, histories, and case studies. The basis for categorizing survey and archival analyses in this way is that both look at the questions of "what" in an explanatory sense, while also answering questions of "how many" and "how much", which are "who" and "where" derivatives (Yin, 1984:17). In contrast, the "how and "why" questions favor experiments, histories and case studies because they focus on "operational links needing to be traced over time, rather than mere frequencies or incidence" (Yin, 1984:18). Most of the investigative questions posed in Chapter I focus on the amount and the reason that the oversight is being accomplished. As a result, archival analysis will be employed for these "how many" and "how much" investigative questions. The other investigative question addresses senior program management's perception as to whether or not oversight is excessive and if so , why? This requires a decision between experimental, history, or case study methodology in order to answer this "how" and "why" question.

The second consideration helps to make this determination.

It asks to what extent the investigator has control over

behavioral events. To use an experimental design, the

investigator needs complete control over the environment he is

studying. Historical and case study methods are more appropriate in situations in which the investigator has no control. The thesis investigator has no control over behavioral events in this topic area. Therefore, either the historical or case study method seem appropriate.

The final area of consideration to determine which research method to employ concerns identifying whether contemporary events will be considered. If there are absolutely no relevant individuals alive to aid in the documentation of facts, the historical method should be exercised. If, on the other hand, historical data can be coupled with observation and interviewing, the case study method should be chosen (Yin, 1984:22). Since a majority of this research will couple historical data with interviews the case study method seems to be the most appropriate methodology to address the "how and" why" guestions.

The case study is defined as

An empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used. (Yin, 1984:23)

The case study method has two basic designs. These include the single and multiple case design methods. The single case study focuses on one specific entity as the object of research. The multiple case design typically focuses on several entities and their interactions with one another. The decision as to whether to conduct a single case study, as

opposed to a multiple case study, involves the following considerations.

- 1. Is the issue a critical case which can be use to test a well formulated theory?
- 2. Is the issue an extreme or unique case, where the situation under study is not of common occurrence, resulting in the need to document a single study to gain insight?
- 3. Is the issue a revelatory case? This situation exists when an investigator has an opportunity to observe and analyze a phenomenon previously inaccessible to scientific investigation.
- 4. Is the issue on in which a single case can be used as a pilot in an exploratory study that may lead to a multiple case analysis later. (Yin, 1984:42-44)

This research falls into Yin's will be in doing what Yin considers to be a single case. The single case is of the C-17 system program office (SPO) within Aeronautical Systems

Division. The justification for using the C-17 as a single case is that it is a unique SPO in the sense that they are under the guidance of the Defense Enterprise Program. This program is basically designed to cut through red tape and eliminate a great deal of the bureaucracy, which initially included oversight, associated with the acquisition of weapon systems. This research is an attempt to explore an area where many assertions have been made in a holistic sense about the frequency and extent to which oversight has been occurring in our government, but where very little specific research has been accomplished, particularly in relation to system program offices. The research analysis consisted of collecting and

reducing evidence, displaying that evidence, drawing conclusions based on that evidence, and finally verifying those conclusions (Miles and Huberman, 1984:21). These components and their interactions with each other are illustrated in Figure 6.

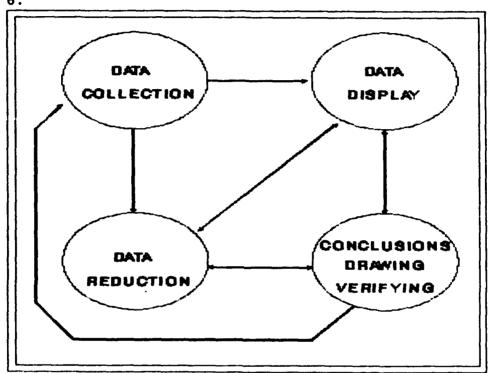


Figure 6. Components of Research Analysis (Miles and Huberman, 1984:23)

Collection and Reduction of Evidence

Yin lists six main sources for collecting evidence in a case study. These sources include: documentation, archival records, interviews, direct observation,

participant-observation and physical artifacts (Yin, 1984:84).

Documentation information "can take many forms and should be the object of explicit data collection plans" (Yin, 1984:79).

Documents may include such information as letters, administrative memos, or written reports of events (Yin, 1984:79). Archival records on the other hand utilize such information as ser ice or organizations records, survey data, and personal records. Interviews can be critical to the success of case study research because they provide the researcher the opportunity to relate facts to the opinions of those interviewed. Direct observation requires that the researcher visit the case study site and collecting information as a passive observer, usually during a series of time periods to measure certain behaviors (Yin, 1984:84). The researcher in participant-observation is no longer a passive observer. In this case the researcher may also be a participant in the case itself (Yin, 1984:86). The final source of evidence is physical artifacts. This may include the collection of art, a tool, or some kind of equipment.

In the case of the C-17 SPO, it would be difficult to directly observe on a passive or participative basis for two reasons. First, the acquisition and associated oversight of a major weapon system usually takes several years. Secondly, the researcher is not a member of the case organization. The collection of physical artifacts is also not possible because there are none of relevance to this case study being researched. As a result, the three main sources that were utilized in this research were archival records, interviews and documents. (Yin, 1984:87-90)

A great deal of the data collected was in the form of archival records and documents. This raw data was in the form of notification of oversight action letters, discussion comments from reports of contact, the respective oversight agencies' final reports, and finally the follow up on those reports. This data was stored in large quantities within the system program office. As a result, it was essential that some boundary or reduction in information occur. According to Miles and Huberman, data reduction is the process of "selecting, focusing, simplifying, abstracting, and transforming the 'raw data' that appears in written-up field notes" (Miles and Huberman, 1984:21). The collection process in regards to this research consisted of reviewing all the raw data associated with each oversight action and extracting the following information:

- Physically counting the number of audits, inspections, and inquiries the SPO has accomplished;
- Recording the purpose/reason for the audit inspection or inquiry;
- Recording the time period in which the oversight occurred;
- Recording the information/data requested by the oversight agency;
- Counting the number of manhours required in answering inquiries, or preparing for the inspection or audit.

In collecting the above data a filing system was established.

The file consisted of an "oversight summary" form, structured according to the above questions. The oversight summary form

for each oversight action within the C-17 SPO is illustrated in Appendix D. This process aided in further analyzing the data collected.

A major potential hurdle in the area of data collection pertains to the availability and accuracy of the data. Most SPOs have a specific office in charge of oversight records, but many don't keep an accurate file. Many simply don't take the time to record every contact with an oversight agency in relation to a specific audit or inspection. As a result, some of the information, such as manhours expended, or information resulting from a report of contact may go unrecorded, leading to research findings in theses areas that are conservative. The C-17 SPO maintained extensive records that reduced this problem. However, it is unlikely that any system could capture everything. Thus, the C-17 research results in this regard could be considered somewhat conservative.

Another form of data collection that was utilized was the personal interview. Yin identifies three types of interviews that could be employed in conducting a case study. These include: open-ended interviews, focused interviews, or a survey interviews (Yin, 1984:89-90). The type that was used in this research is that of the open-ended interview. this was chosen because it allows the investigator to "ask key respondents for the facts of a matter, as well as for the respondents' opinions about the events" (Yin, 1984:89). This mode of interviewing

for this research allowed a conversational approach. The interviewer did not use a specific, ordered list of questions because such formality would have destroyed the conversational style used in the survey approaches to interviewing. To permit flexibility in shaping the interview, a list of areas to cover served as an interview guide. The interviewees within the SPO were selected based on their knowledge, position, and direct contact with the various oversight agencies. These included, but were not limited to, the program director, deputy and assistant program directors and other SPO personnel. Interviews were face-to-face, or in special cases, conducted via telecon.

Data Display

Another primary consideration when conducting a case study is that of displaying the data. Display is defined as "an organized assembly of information that permits conclusion drawing and action taking" (Miles and Huberman, 1984:21). There are many different forms of displays. These include a wide variety of matrices, flow charts - chronological or cause and effect, charts, and figures. They are all designed to organize the information in a succinct, easy to read format that will aid the investigator in the analysis, while also increasing the ease of communicating the data to the reader (Miles and Huberman, 1984:22). Various data displays were employed during the research and are incorporated, where

appropriate, in this report to answer the investigative questions, and ultimately the research question.

Conclusion Drawing/Verification

The third and final part of the case study involves drawing conclusions. Throughout the analysis the investigator may begin to see patterns, causal relationships, or clustering. These relationships, during the conclusion drawing stage, begin to become more solidified and specific. In short, conclusion drawing involves capturing the meanings the investigator draws from the various data displays employed in the research (Miles and Huberman, 1984:215). The second and equally important half of this theme is verification. Verification is the process by which the investigator confirms the data. This could include colleagues reviewing the information and reaching a consensus or replicating the findings in another environment (Miles and Huberman, 1984:22). In summary, "the meanings emerging from the data have to be tested for their plausibility, their sturdiness, their 'confirmability' ... " (Miles and Huberman, 1984:22). The verification process in this case study was constant throughout the research as decisions were made about what information to obtain, what form to obtain it in, and how it should be analyzed. Oversight final reports (official documents) were utilized to confirm data contained in thee

various reports of contact, while the plausibility and confirmability of the conclusions were verified by informants and the thesis committee.

Summary

In summary, the research consisted of conducting a single case study of the C-17 SPO. This case study included archival data collection; recording and analyzing both oral and written communication within the SPOs, Congressional reports, and professional journals, and semi-structured interviews with key informants to address program management's perception of the excessiveness of oversight. This in turn answered the six investigative questions and ultimately addressed the research question, "Has oversight become so burdensome that it significantly detracts from the ability of the system program offices to focus on fielding new weapon systems which achieve the government's requirements of performance, schedule, and cost?"

IV. Presentation of Results

Chapter Overview

This chapter describes the findings associated with the investigative questions presented in chapter I. To adequately address the full scope to this research, the data was gathered from archival records and analyzed to specifically answer each of the six investigative questions. Additionally, interviews were conducted with senior program management staff in the C-17 system program office to confirm the data and enlighten the research. Each investigative question is restated on the following pages, followed by a detailed description of the results.

Investigative Question One

How many audits, inspections, and congressional inquiries were conducted for the entire C-17 program to date and what was the timeline for oversight actions in the past three years?

The intent of this question was two-fold. First it was to determine exactly how much oversight had occurred both in terms of each oversight agency and in total; and secondly, to determine the period of time in which the oversight had occurred in the past three years. An oversight action was defined as any interaction between the C-17 SPO and an oversight agency. This action normally begins with a formal notification letter from the respective oversight agency. It

continues through a data collection and a reporting phase, in which a final report or an official close out letter is issued by the oversight agency. If a report is issued, the oversight action will also include any follow-up actions required by the report. The first part of the investigative question was answered by compiling, over the last five years, the necessary information from the oversight data base maintained by the C-17 SPO. The second part of the question involved mapping out each oversight action within the last three years, on a time line sorted by initiating agency. The oversight actions were then compiled according to the number of ongoing actions in each given quarter. This was done for each agency, and in total. Overall, there have been 72 oversight actions pertaining to the C-17 SPO since late 1986. includes 31 General Accounting Office oversight actions, 25 Air Force Audit Agency actions, and 16 Department of Defense Inspector General audit oversight actions. A complete list of these actions is found in Appendix A.

A summary of the results in relation to the timeline for oversight actions is presented in Table 7. This table reflects how many audits were occurring during any given quarter over the last three years and in total. For example, in the first quarter of 1990, there were 8 ongoing oversight actions involving the GAO, 4 in relation to the DoDIG, and 7 actions involving the AFAA, for a total of 19 oversight actions ongoing at any given time within the SPO during that quarter.

TABLE 7

QUARTERLY SUMMARY OF OVERSIGHT ACTIONS

| ABENCY | | 1969 | | | 1990 | | | 1991 | | | | |
|--------|----|------|----|----|------|----|----|------|----|----|----|---|
| | - | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| GAO | 5 | 7 | 10 | 8 | 8 | 9 | 7 | 5 | 8 | в | 6 | |
| DODIG | 3 | 2 | 3 | 4 | 4 | в | 8 | 10 | 10 | 10 | 10 | |
| AFAA | 2 | 5 | 7 | 7 | 7 | 8 | 8 | 8 | 7 | 3 | 3 | |
| TOTAL | 10 | 14 | 20 | 20 | 19 | 23 | 23 | 23 | 23 | 19 | 19 | |

The oversight actions range from a low of two by the DoDIG in the second quarter of 1989 to a high of 10 by the GAO in the third quarter of 1989 and the DoDIG in the fourth quarter of 1990 and the first three quarters of 1991. Overall oversight actions range from a low of 10 in the first quarter of 1989 to 23 during the last three quarters of 1990 and first quarter of 1991. A more extensive timeline can be viewed in Appendix B.

Investigative Question Two

How many manhours are being expended in preparing for, interfacing with, reviewing the findings of the various agencies, and resolving issues resulting from those actions? What is the average manhours per action?

The intent of this question was again twofold. First it was to determine not only how much time was being expended in

preparing for an oversight action, but also the amount of interface time between the agency and the SPO, to include reviewing the findings from the various agencies reports and resolving any issues resulting from those reports. The second part of the question required the computation of the average manhour per action for the 72 oversight actions discussed previously. Both questions were answered by compiling the necessary information from the oversight database within the SPO and verifying that information by employing a second compilation of the manhour figures in each report of contact filed within the individual audit folders. The specific manhours expended on each oversight action can be reviewed in Appendix C. A summary of the results can be seen in Figure 7. This figure reflects the total time spent in the oversight life cycle by the C-17 SPO with respect to each agency's actions while also illustrating the average time expended (in manhours) in carrying out each action. It should be noted that these figures are conservative for three reasons. First, a portion of the oversight work accomplished was said to be on an informal basis. As a result, some work went unrecorded. Secondly, the individual being questioned, whether by telephone or in a face-to-face interview, may have failed to accurately account for the work accomplished. And finally, these figures do not include the contractor's manhours spent on oversight actions.

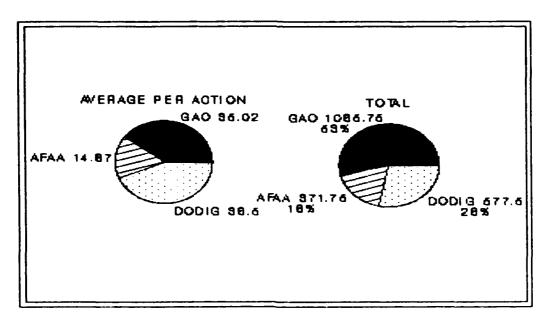


Figure 7. SPO Manhour Oversight Summary

Overall, The SPO expended 2,035 manhours on the 72 oversight actions described previously. The GAO's 31 oversight actions accounted for 1085.75 manhours (53% of total manhours), the AFAA's 25 oversight actions accounted for 371.75 manhours (18% of total manhours), and the DoDIG's 16 actions accounted for 577.5 manhours (28% of total manhours). On the average, overall, the C-17 SPO expended 28.26 manhours on each oversight action. By agency, this breaks down to 35.02 manhours on GAO actions, 14.87 manhours on AFAA audits, and 38.5 manhours to accomplish DoDIG oversight actions. It should be noted that on average, AFAA audits consumed significantly less of the SPO's time while GAO and DoDIG audits consumed significantly more of the SPO's resources.

Investigative Question Three

What is the total duration of the audits, inspections, and congressional inquiries? What was the average duration per oversight action?

The intent of the first part of this question was to determine the duration of the various oversight actions in months. The duration was defined as the time from the notification of oversight through closeout. There were three basic possibilities for closeout. These included: a closeout letter with no final report (typically a survey), a closeout final report, and a final report with follow up required to resolve the findings and recommendations. The second part of the question required that the researcher determine the average duration in months per action for the 72 oversight actions discussed previously. Both questions were answered by compiling the necessary information from the oversight database within the SPO and verifying that information by calculating a second set of duration figures from the information contained in each individual oversight folder. A summary of the results can be seen in Figure 8. Figure 8 reflects the total duration (in months) for each oversight agency. Figure 8 also depicts the average duration (in months) with respect to each agencies actions. The specific duration for each oversight action can be reviewed in Appendix C.

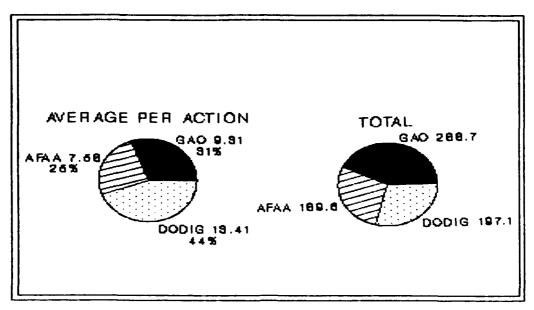


Figure 8. SPO (Months) Duration of Oversight Summary

Overall, the duration of the various actions within each are 288.7 months total for the GAO, 189.6 months for the AFAA and 197.1 for the DoDIG. In regards to each agency, the average duration for GAO actions was 9.31 months, while the average AFAA action lasted 7.58 months, and the average DoDIG action was 13.41 months long. The overall average duration per oversight action within the SPO was 9.38 months.

Investigative Question Four

In relation to the above agencies and their respective oversight actions, who initiated or generated those actions?

The intent of this question was to determine what agency or organization initiated each of the 72 oversight actions within the C-17 SPO. In regards to the GAO, the distinction was between actions generated internally versus those generated

by congress. The distinction within the AFAA was between those actions that were centrally directed versus actions at the local level. And finally, the distinction within the DoDIG was those actions generated internally versus actions generated by an outside organization. This question was answered by researching each oversight action folder to determine who initiated the oversight action. For instance, GAO reports specifically identify the Congressional requestor in the introduction to the report. A summary of the results is found in Figure 9.

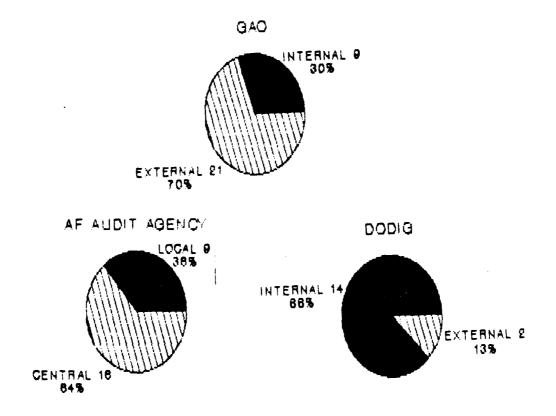


Figure 9. Oversight Directing Agencies

Regarding the GAO, 9 of the 30 oversight actions (30%) were considered to be internally generated, while 21 (70%) were requested by congressional committees such as the House Armed Services Committee or House Committee on Energy and Commerce. For the AFAA, 9 of the 25 oversight actions (36%), were locally directed, while 16 (64%) were identified in the documentation as centrally directed. And finally, in the area of DoDIG oversight, 2 of the 16 (12.5%) were externally generated, while 14 (87.5%) were identified as internally generated.

Investigative Question Five

How many of the above actions were duplicative, i.e., redundant in scope (addressed identical issues) or addressed different issues but requested the same information whether it be verbal (interview) or written (documents)?

The intent of this question was to determine if, in fact, the three oversight agencies were duplicating oversight actions by asking the same questions, collecting identical information, or investigating similar issues. The question was answered by extensively researching each oversight action folder, and by discussing those actions with past and present program control staff within the C-17 SPO. The information necessary to make the determination as to whether or not there was duplication was recorded on an oversight summary sheet. This gathering tool recorded the following information:

- the oversight agency directing the action,

- duration of the action
- subject of the audit (identified in the notification letter),
- manhours expended in accomplishing the oversight action,
- status of the action.
- reason/direction of the oversight action,
- data requested throughout the life of the action, and
- a summary of the oversight action.

A summary sheet for each of the 72 oversight actions can be seen in Appendix D. The criteria utilized by the investigator to determine duplication were:

- 1. There was duplication within or between oversight agencies in the scope of the various oversight actions.
- Regardless of scope (different or similar), oversight actions contained a request for similar information (written or verbal).

Table 8 represents a summary of the findings on this point. The first column represents those actions which the investigator classified as being duplicative, as defined above, while the second and third columns represent the project number and timeframe, and finally the fourth column represents the focus of the respective oversight actions.

TABLE 8 DUPLICATION OF OVERSIGHT ACTIONS

GAO

Case Action Time Focus of Action

Survey of Cost Effectiveness 392206 1986 Review of program cost

| FY87 President's Budget | 392179 | 1986 | Review of program budget preparation |
|--|--------|-------|---|
| Review of Aircraft procurement Budget Preparation and Execution Process | 392284 | 1987 | Review of program budget preparation and execution process |
| AF Progress in Meeting C-17 Cost, Schedule, and Performance goals | 392372 | 87-89 | Review of program cost, schedule and performance |
| Examination of AF Financial Statements for FY88 | 917118 | 87-88 | Review of overall AF's financial operations |
| Review of Major Weapon Systems | 393279 | 87-88 | Review of program cost, schedule and performance |
| FY89 Aircraft Procurement Requests | 392388 | 1988 | Review of program cost |
| Aircraft Engine Research and Development Programs | 396219 | 1988 | Review of program RDT&E funding |
| DoD Implementation of Packard Commission Pecommendations | 396714 | 88-89 | Review impact of Packard Commission on Acquisition |
| Air Force's FY90 Aircraft Procurement Budget Request | 392452 | 1989 | Review of program cost and schedule issues |
| Attainability of C-17 Goals, Given Current Budget Constraints | 392482 | 1989 | Review of program cost, schedule and performance |
| DoD Early Operational Assessment | 396227 | 1989 | Review of C-17 of ratinal as assment |
| Review of C-17 Research and Development Costs | 392529 | 89-90 | Review of program R&D, and prior similar reviews |
| Air Force's FY91 Aircraft Budget Request | 392543 | 1990 | Review of program cost and prior appropriations |

| Survey of | Embedded | Computer | 510619 | 90-91 | Review | οf | program |
|-----------|----------|----------|--------|-------|--------|----|---------|
| Software | | | | | status | | |

AFAA

| Case | Action | Time | Focus of Action |
|---|---------|-------|---|
| C-17 Warranties | 6030009 | 86-87 | Review of overall program |
| Acquisition of Fll7 Engine and Its Related Logistics Support | 7036316 | 87-88 | Review of engine and related support issues |
| Review of Logistics Supportability | L89-466 | 1989 | Logistics support analysis |
| Review of Fll7 Spare Engine Requirements for the C-17A Aircraft | 0126121 | 89-90 | Review of spares requirements computations |
| C-17 Initial Provisioning | 0036310 | 1990 | Review of program spares and C-17 logistics provisioning |

DoDIG

| Case | Action | Time | Focus of Action |
|---|----------|-------|---|
| Audit of Component Breakout | 7MA-047 | 1987 | Review of breakout program |
| Make or Buy Program | 6CD-033 | 1987 | Review of make or buy program |
| Acquisition of C-17 Aircraft | 8MA-009 | 87-88 | Review of entire program |
| Component Breakout Program | 9AP-0044 | 89-90 | Review of breakout program in major weapon system |
| Audit Coverage of Major Acquisition Programs | AUD REV | 90-91 | Review impact of oversight on acquisition |

The first criteria that was used in the analysis of duplication, was duplication within or between oversight

agencies in the scope of the oversight action. In reviewing each oversight folder, no oversight actions with complete duplication in scope were found, although, many did overlap in some way to some degree.

The first area of duplication concerned the overall acquisition of the C-17 aircraft. The DoDIG performed an audit in 1987 titled "Acquisition of C-17A Aircraft." The reason for the audit was to evaluate the effectiveness of acquisition planning and the execution of the program. The review focused on program management organization, logistics, test and evaluation, mission critical computer resources, manufacturing, fleet integration, cost estimating, scheduling, and program management element approach. A similar oversight investigation was conducted by the AFAA in 1986 entitled "C-17 warranties." The title of this investigation is deceiving. After the material was reviewed in the oversight folder, it was determined that this oversight actually looked at the overall acquisition of the C-17 aircraft. Many of the same documents were reviewed, while similar subject areas such as total program cost, technical areas, and computer resources software development management were investigated. The GAO also conducted a review in 1986 titled "Overall Acquisition of C-17 Aircraft." This investigation specifically focused on the effects of Gramm Rudman Hollings legislation on the procurement of the C-17, but it ultimately focused on the justification for the program, i.e., is the acquisition of the C-17 necessary;

and the related cost, schedule and performance areas of the overall program. A final audit that touched many of the same topics was an investigation by the GAO in September 1989 titled, "Survey of C-17 Research and Development Costs." The purpose of the investigation was to identify the cost elements of the C-17 research and development program and to provide information on the complexity of C-17 systems and structures, while addressing the reasonableness of the C-17s R&D costs. In order to compile the information and data to answer the above concerns a great deal of effort was expended in "Congress wanting to gain an overall understanding of the C-17 program."

Another area of duplication was in the area of component breakout for the C-17. The DoDIG performed an investigation entitled, "C-17 Component Breakout Program for Aircraft Systems." The reason for the audit was to determine if the services were performing comprehensive component breakout reviews of aircraft systems in accordance with Federal Acquisition Regulations and DoD guidance. This audit was suspended so that aircraft systems in a DoD wide audit could be included. More than two years later, the DoDIG conducted another investigation entitled, "Component Breakout Program for Major Systems." This was a self-initiated audit by the DoDIG's Contract Management Directorate. The overall objective was to determine if the services were performing adequate component breakout reviews and aggressively pursuing component breakout on major systems. There is no written documentation that this

is a continuation of the previous audit. If it is in fact a continuation, the earlier investigation was repeated to a large extent in the documentation requested and the areas previously investigated.

A third area of similarities concerns "progress checks", i.e., how well the C-17 is meeting cost, schedule and performance goals. In 1987, the GAO was requested by congress to conduct an investigation titled, "Air Force's Progress in Meeting C-17 Cost, Schedule, and Performance Goals." The reason for this investigation was to provide Congress with the program's overall status in the areas of cost, schedule, and performance. It looked at cost growth issues, issues in relation to the schedule and first flight, and the increase in program acquisition costs. A similar investigation was conducted in late 1987 by the GAO once again. It was also requested by Congress and was titled, "Review of Major Weapon Systems." The reason for the investigation was to review 23 major defense acquisition programs and provide current information on each program's requirements, schedule, performance cost and funding support. Many of the same cost, schedule and performance documents were requested, which provided essentially the same status as reported previously. It wasn't as extensive as the previous investigation, but it did have some similarities in the areas of investigation.

Another area of similarities concerns the subject of oversight. The GAO initiated an investigation in September

1988 titled, "DoD Implementation of Packard Commission Recommendations Regarding Acquisition Personnel Reform." The purpose of the investigation was to determine if there were any changes in the acquisition process after implementation of the Packard Commission recommendations. Specifically, the GAO wanted to determine if they, along with other oversight agencies, have a beneficial impact on Air Force procurement programs. A similar investigation was conducted in July 1990 by the DoDIG. It was requested by the Under Secretary of Defense for Acquisition and was titled, "Audit Coverage of Major Acquisition Programs." The reason for the audit was the perceived problem of "overauditing" many DoD programs by the respective agency's auditors. Again, the question raised was whether or not the DoDIG and other oversight agencies have a beneficial impact on Air Force procurement programs. A review was initiated to determine whether overauditing existed and, if so, to determine what improvements were necessary in the ways in which audits are scheduled and coordinated.

A fifth area of possible duplication in oversight scope involved the GAO. The GAO experienced some similarities in scope in their annual review of budget requests. Between 1986 and 1991 there were eight audits that focused exclusively on the financial operations of the SPO. Some were similar in scope, while many requested documents similar to those requested in previous audits. For example, the "FY89 Aircraft Procurement, Air Force Appropriation Request" focused on

conducting a budget scrub of the C-17, including FY86-88 and the FY89 budget submission in relation to both R&D and production. Some overlap occurred in budget reviews conducted in 1988, "FY88 Budget Review", and the "Exam of Air Force Financial Statements for FY88", and in the 1989 "Survey of C-17 Research and Development Costs."

A final area in which some overlap in oversight actions was determined concerned logistics issues related to the F117 engines. The AFAA initiated an audit in June 1989 titled, "F117 Spare Engine Requirements for C-17 Aircraft." The objectives of the audit were to evaluate the accuracy of data used in spares requirements computations and the maintenance concept planned to support the C-17 engine. A similar but more extensive audit was initiated by the AFAA in October 1988 titled, "Acquisition of F117-PW-100 engines and related logistic support." This audit not only looked at the acquisition plans for the F117 spare engine modules and repair parts, but also looked at interim contractor support, intermediate and depot-level support equipment, spare engines, and engine data.

In summary, duplication within or between oversight agencies in the exact scope of the various oversight actions was not found. Scopes were never identical. Never the less, the situations described above indicate that inspections did overlap to some degree. The similarities were much more prevalent in some action areas than others. It ranged from

relatively extensive overlap in such action areas as the overall acquisition of the C-17 to the more limited overlap of specific areas within larger audits, such as the F117 acquisition and related logistics.

The second criteria in determining duplication regarded oversight actions which, regardless of scope, requested similar information in either written or verbal form. The "reports of contact" documentation contained in each oversight action folder was used to answer this question. The investigator only looked at duplication within the respective oversight agencies because it would be unrealistic to assume a common data collection file would be utilized between agencies.

The C-17 SPO has generated a great deal of documentation to support oversight actions. For example, for the DoDIG audit, "Acquisition of the C-17A Aircraft", the SPO provided or released over 127 documents during the course of the action. For the GAO inspection, "Air Force's Progress in Meeting C-17 Cost, Schedule, and Performance Goals," the SPO provided or released 146 documents over the course of the oversight investigation. These documents included a great deal of basic unchanging about the overall acquisition of the C-17. Many of the same documents were requested repeatedly for other investigations be seen repeatedly in other smaller investigations.

Documents such as the Test and Evaluation Master Plan
(TEMP), C-17 Warranty Documents, Integrated Logistics Support

documents, financial statements, and various software documents were repeatedly asked for by different oversight investigators in the same agency. For example, although the TEMP was mailed to the GAO on 22 November 88, it was also requested in a 1989 investigation, "DoD Early Operational Assessment of Weapon Systems," and a 1990 investigation, "Survey of Embedded Computer Software." Another case in which the GAO requested similar documentation concerned the annual review of budget requests. Many requests asked for prior fiscal year documents that had been requested in previous audits.

The repetitiveness of documentation requests was not limited to the GAO. Regarding the DoDIG, the same make or buy information was requested for three different oversight investigations. These included the 1987 investigations "C-17 Component Breakout Program for Aircraft Systems" and "Audit of Contractor Make or Buy", and the 1989 investigation titled, "Component Breakout Program for Major Systems." In regards to the AFAA, various logistics support plans were requested for both "C-17 Initial Provisioning", and "C-17 Warranties." The AFAA also requested a great deal of similar information about spares requirements and the F117 engine for the 1988 audit "Acquisition of F117-PW-100 Engine and Related Logistic Support" and a 1989 audit "F117 Spare Engine Requirements for the C-17 Aircraft."

In summary, duplication in terms of documentation requests seemed to be prevalent in many of the oversight action areas

within the oversight agencies. This duplication ranged from overall acquisition plans to specific areas such as test and evaluation and program control. However, simply due to the numbers involved, there is bound to be some duplication when hundreds of documents are being released to the oversight agencies.

Investigative Question Six

Through the documented facts gathered in the above questions, do the experts (senior program managers) believe the amount of oversight to be excessive? And, if so, why?

The intent of the basic question was to determine if the experts (senior program managers) believed that the amount of oversight of the C-17 SPO was excessive. The intent of the second part of the question was to obtain some understanding of why the experts felt the way they did. These questions were answered through open-ended semi-structured interviews utilizing the conversational approach. The interviewees within the SPO were those individuals who had the most extensive and direct contact with the various oversight agencies. The interviews were exclusively face to face and covered five basic areas. These included:

- 1. The perceived purpose of oversight.
- 2. When is oversight perceived to be counterproductive.
- 3. Facts and findings discussion, based on the results of the analysis.

- 4. Opinions based on the above discussion, i.e., are they perceived to be excessive/counterproductive? And if so, why?
- 5. Based on the above discussion, where has oversight been perceived to be useful in aiding the program manager accomplish his or her job more effectively or efficiently.

The first area discussed was the experts' perception as to the purpose of oversight. The interviews identified three major purposes of oversight. The first was the fact that the C-17 is a multi-billion dollar program that will involve purchasing over 200 aircraft. As a result, the chain of command both within and outside the DoD, have a right to know how the money is being spent, if it is being spent in the most efficient and effective manner, if the system is performing to. the specifications and requirements specified in the contract. and if the system is on schedule. The second purpose is to provide a constructive evaluation of the health of the program, either in a specific area or on an overall assessment basis. This type of oversight may result from an observed or perceived problem, or it may occur on a purely preventative basis. The third and final perceived purpose of oversight is to provide a means to crossfeed information between organizations. This may consist of constructive lessons learned from various SPOs that could aid program managers in identifying potential areas of weakness before they become a problem or threat to the health of the program.

The second area discussed in the interviews concerned the issue of when oversight was perceived to be counterproductive. The interviews identified five situations in which oversight is perceived to be counterproductive. first is when the oversight action is perceived to be a "fishing expedition", i.e., there is no focus or perceived purpose of the oversight action. The oversight action is simply being used to gather a great deal of data, find fault in some aspect of that data, and then develop a more intensive oversight action to address that specific area. The second situation in which oversight is perceived to become counterproductive is when the coverage of the oversight is in an area where program management actions are yet to be accomplished. In this situation the overseer may revert back to the "fishing expedition." A third situation involves the time spent to train unqualified auditors in the disciplines of auditing SPOs. This is perceived to result in valuable time being directed to training an auditor rather than managing a program. A fourth situation is when an oversight agency assumes the role of a "policeman," rather than an agency attempting to benefit or help the SPO. This was seen as fostering a lack of trust between the two organizations. result, a large amount of time may be expended in unnecessary "bickering." The final situation in which oversight is perceived to be counterproductive was identified by the interviewees to be when it is excessive in terms of actual

numbers and manhours or repetitive in terms of scope or documentation. This is the case when the program manager spends more time with overseers than he does in running the program, or a program manager is continually being asked the same questions or being asked for the same documentation by different inspection teams.

Once general opinions were documented, the research facts and findings were discussed. There were three summary observations made in this area. The first observation concerned the manhours expended. Documentation showed manhours to be approximately 2035 for the 72 oversight actions. experts felt these documented manhours were far below what they perceived them to be. In fact, one expert was under the impression that manhours dedicated to oversight actions were in excess of 5,000 manhours. A second observation was made in relation to the amount of oversight ongoing in the different quarters and the duration of those actions. The individuals being interviewed were somewhat surprised that as many as 23 actions were ongoing in four different quarters, and the average duration of an oversight action was over nine months. A final observation was made during the discussion and interpretation of the agencies initiating the various oversight actions. There was some confusion as to actions considered to be internally and externally directed in the case of the GAO and DoDIG, as opposed to an action being locally or centrally directed in the case of the AFAA. The distinction between the

two was never made clear to the program managers. As a result, one expert was under the impression that a majority of the audits conducted by the AFAA were directed from the local office.

The third area covered the interviews concerned whether or not the experts perceived that oversight was becoming counterproductive, and if so, why. The interviewees indicated that they thought that oversight was becoming counterproductive in several ways. The first concerned duplication both in terms of scope and requests for documentation. Once duplication of effort and documentation findings were discussed, comments such as "At times it appears there is no communication within or between oversight agencies... There are too many similarities, both in audit topics from one agency to another and in documentation requests from one action to the next." As a result, they felt that the number of hours being spent by the SPO's personnel were in many ways repetitive and counterproductive. This, coupled with "manpower shortages magnifies the impact of personnel being distracted from managing their portion of the program." A second concern, also in relation to the number of manhours being expended, involves the interface time between senior SPO personnel; division chiefs and above, and oversight team members. The perception is that the SPO's best people are being forced to spend excessive amounts of time defending positions, explaining documentation, and training auditors.

This leads to the next area of concern in relation to oversight being perceived as becoming counterproductive; training unqualified auditors in the discipline of auditing. The interviewees perceived that the SPO, in many instances, is the training ground for inexperienced auditors. As a result, a great deal of manpower is being expended to train auditors in disciplines with which the auditors should already be familiar. Added to this problem is the perception that once the auditors have been trained, the auditors feel the senior SPO personnel have selectively left many important details out of the training. As a result, the level of mistrust between the auditor and auditee is increased. One expert summarized the situation best when he declared, "The inexperienced auditor enters the SPO with the attitude of 'teach me, but I won't trust what you have taught me.'"

Another concern involves the draft and final report review process. In many instances, reports have been perceived as having a biased tone, i.e., they are not written in an objective manner. As a result, senior SPO personnel spend excessive manhours attempting to correct the tone of the various reports. In fact, one expert stated that in general, the SPO reviews the final draft report a minimum of three times before the final formal report is distributed. Coupled with this problem in the review process is the feeling that their comments and inputs are not taken seriously and are very seldom included in the formal final report.

Another area of concern leading to counterproductivity involves auditors perceived to be on fishing expeditions. In many instances the experts named specific reports in which the oversight agency began with a specific audit title and then branched out into many different areas once the oversight action began. As a result, a great deal of time was spent in obtaining documents (many times the same documents used in previous audit actions) and interfacing with auditors to justify actions and review findings in areas that weren't included in the original scope of audit.

Some of the interviewees felt that audits were becoming counterproductive because a majority of the problems "uncovered" in an oversight action have usually already been identified through the program office's chain of command by "program management reviews, functional management reviews, etc..." In some instances the oversight agency identifies a problem that has already been identified within the SPO. Corrections often may have already been undertaken. As a result, documented savings from the oversight agency's findings are often contested and a great deal of time is being expended to ultimate resolve the conflict.

The final area of concern involved oversight agencies
"publicly flogging" the SPO for mistakes in the program,
that occurred long before the current management staff was in
place. As a result, the management staff is forced to answer
for decisions that weren't theirs to make. This has lead to a

great deal of conflict between the agencies and senior SPO personnel.

The final area covered in the interviews concerned cases where oversight has been perceived to be useful in aiding the program manager in accomplishing his or her job more effectively or efficiently. There were two observations in this area. First a majority of the experts felt the greatest benefit was in preparing for the oversight action. One expert called it "the preventive threat type benefit." These actions included updating records, eliminating unnecessary waste within the programs, and taking a more critical look at the progress in each respective area of the program. second observation was that, in general, the first observation was overwhelmingly the only real perceived benefit of oversight actions. One expert commented, "There has been no direct benefit from the audits and inspections that have been accomplished. The only real benefit is derived from the preparation and clean up."

V. Conclusions and Recommendations

Introduction

The purpose of this research effort was to determine if oversight has become so burdensome that it significantly detracts from the ability of system program offices to focus on fielding new weapon systems which achieve the government's requirements of performance, schedule, and cost?" This question embraces the totality of the oversight process. This includes all of the administrative requirements necessary for an oversight agency to interface with the SPO. To accomplish this task, the study first analyzed the issues involved. The concept of oversight was then reviewed. Oversight was considered in both a broad, general sense and in the specific case as it pertains to the DoD. This included a discussion of the agencies involved in oversight of and within the DoD and current and future oversight that pertain to the DoD.

The methodology employed to answer the research question was described in Chapter III. This description included an analysis explaining the selection of a research approach, data collection and reduction techniques, data displaying techniques, a discussion of how conclusions would be drawn from that data, and finally, information on the process of verifying the conclusions and data. The research results generated through the process described in Chapter III were presented in Chapter IV. In this final chapter, the focus of

the discussion will be in the integration of the six investigative questions to draw both conclusions and recommendations for further actions. A list for further research is also provided.

Conclusions

It is clear that over the last five years the C-17 SPO has been subject to numerous oversight activities by the GAO, AFAA, and DoDIG. In mapping out these actions it is apparent that in any given quarter during the last three years, there have been, at a minimum, 10 oversight actions occurring simultaneously, while at a maximum, the SPO has been engaged in 23 oversight actions at the same time. As a result, program managers were engaged in numerous ongoing audits, while attempting to carry out their program management duties. actions have accounted for at least 2,035 manhours of dedicated SPO time. This is equivalent to approximately one man year exclusively dedicated to compiling data, interfacing with oversight personnel, reviewing findings, and completing follow up work where necessary. On the average, the SPO expended over 28 manhours per oversight action. Adding to the burden of the oversight action itself, SPO personnel were often faced with having to train what they felt were unqualified auditors. These examples actually understate the impact of this situation, since many of these hours had to be dedicated to oversight by the SPOs top managers. This detracted form

their ability to carry out their duties sometime for relatively lengthy periods of time.

It is also apparent that 70% of all oversight actions are externally driven by the GAO, i.e., Congressionally requested. Therefore, 30% of the GAOs oversight action with respect to the C-17 SPO were not requested by any other government organization. Regarding the AFAA, 64% of the audits were centrally directed, while 36% were generated locally. Thus, it can be concluded that over one-third of the audits conducted by the AFAA were not directly requested and intended for senior management. In regards to the DoDIG, 88% of the oversight actions are internally driven. According to the experts, this was a normal breakout in terms of initiating oversight actions.

It is also clear that the SPO has been faced with duplicative effort within and between the three agencies. This conclusion was based on scopes of the various actions and repetitive requests for the same documentation. Duplication of scope ranged from extensive overlap in such actions as the overall acquisition of the C-17 to specific overlap of areas within larger audits, such as the engine acquisition and related logistics. Duplication in relation to document requests was prevalent in many of the different oversight actions both within and between agencies. These two forms of duplication, coupled with the massive amount of manhours and time expended by SPO personnel seem to support comments made by

senior personnel such as Secretary Rice that oversight now is overdone.

Reforms

The conclusions above indicate that some reform of oversight is in order. These reforms apply to three basic areas.

The first area concerns the selection process for oversight actions. A review of policy in regard to determining what programs will be inspected and why those areas will be inspected seems to be in order. This purpose then needs to be better communicated to the organization being inspected. This could help to counter the perceptions of oversight "fishing expeditions."

The second area involves the amount of time being spent on audits, both in terms of manhours and the duration of the actions themselves. Specific standards should be established regarding the amount of interface with the SPO. The result of such standards might be that the oversight action itself would not detract as much from the regular duties of the program managers. This would also produce more "real time" feedback to the areas being inspected. This would not only aid the SPO internally, but may aid other SPOs by crossfeeding information more quickly.

The third area concerns duplication, both in terms of scope and data requests. To avoid duplication in scope, the

current policy of pre-coordination should be reviewed. A more thorough scrub of oversight actions before the actual oversight takes place and more active communication during the action itself could help to reduce the perceived problem of excessive manhours being expended on duplicative actions. Regarding the duplication of data requests, a review of the archival records and agency data bases seems in order. Merely checking the file pertaining to prior and on-going oversight actions in a SPO could avoid many of the repetitive data requests.

Recommendations for Further Research

The issue of oversight of and within the Department of Defense is a fertile area for future research. The following is a list of possible research topics.

- 1- Prepare a case st dy of a major weapon system SPO not under the guidance of the Cafense Enterprise Program within Aeronautical Systems Division, Wright-Patterson AFB, OH.
- 2- Prepare a case study of a classified program (Advanced Tactical Fighter or B-2) SPO within Aeronautical Systems Division, Wright-Patterson AFB, OH.
- 3- Prepare a case study of a Navy Material Command program Air Systems; Facility Engineering; Ordnance Systems; Ship Systems; or Supply Systems, Arlington, VA.
- 4- Prepare a case study of an Army Material Command program , Arlington, VA.
- 5- Research the differences in oversight of and within the three acquisition services.
- 6- Research the oversight execution process and structure of the various agencies involved in oversight action.

7- Research the justification process for determining areas to be audited or inspected.

Final Comments

In a world where peace and freedom are now emerging in unprecedented terms in both Eastern Europe and the Soviet Union. it would be it would be ludicrous to think that the Department of Defense could spend \$300 billion per year without Congress and the Secretary of Defense being keenly interested in how the \$300 billion is being spent. This, coupled with massive budget deficits, has resulted in an even more critical scrutinization of defense spending for weapon systems. As a result of this intense and detailed oversight, many senior DoD personnel believe that the managers of weapon system SPOs are increasingly being diverted from managing their multi-billion dollar programs to spending counterproductive time meeting and interfacing with oversight inspection teams.

This research has attempted to explore this subject in one specific case, the C-17 SPO. It was initiated to determine if the above perception was valid. It identified areas in which oversight seemed excessive and counterproductive (according to the criteria developed for the research) and areas of possible reform. Acting on these could permit oversight agencies to increase their effectiveness in carrying out their oversight responsibilities. The information contained in this study should be used as a starting point for reform. Additional

research though is required before regulations, policy, or legislation, is adjusted to reduce counterproductive oversight.

Appendix A: List of Oversight Actions

| •• | FILE# | Project# | TITLE FOR: AFAA |
|----|-----------------------|-----------------|---|
| | | | |
| • | 7p3-3 | AUDIT REVIEW | AFSC ADP SYSTEM DEVELOPMENT ACTIVITIES |
| • | 7D3-3-01 | 6030009 | C-17 WARRANTIES |
| • | 7D3-3-02 | 7036316 | ACQ OF F117-PW-100 ENGINE & RELATED LOG SUP |
| • | 7D3-3-03 | 7036329 | EVAL OF C-17A NON-PRIMARY A/C REQ |
| • | 7D3-3-05 | 8066415 | ACQUISITION OF TECHNICAL ORDERS FROM CONTRACTORS |
| • | 7D3-3-06 | 9066410 | CONTRACTING FOR ENG SRVS TO SUP AFSC WEAPON SYS ACQ |
| • | 7D3-3-07 | L89-462/9060001 | SUPPORT EQUIPMENT ILLUSTRATION (SEI) PROCESSING |
| • | 7D3-3-08 | L89-501 | SEL REV OF MODULAR AUTO TEST EQUIPMENT |
| • | 7D3-3-09 | L89-466/9030001 | SEL REV OF LOG SUP ANALYSIS |
| • | 7D3-3-10 _. | 9126123/0216121 | F117 SPARE ENGINE REQ FOR C-17 A/C |
| • | 7D3-3-11 | L89-492/9030001 | ACCURACY OF SELECTED ACQUISITION REPORTS (SARS) |
| • | 7D3-3-12 | 0076412 | PLANNING FOR QUALITY ASSURANCE |
| • | 7D3-3-13 | L89-502/9190001 | MANAGEMENT OF EMBEDDED COMPUTERS |
| • | 7D3-3-14 | L89-500/9210003 | MGHT & USE OF PHONE CONTROL CREDIT CARDS |
| • | 703-3-15 | L90-603 | REVIEW OF RING LASER INERTIAL NAVIGATION UNIT |
| • | 7D3-3-16 | 0196625 | COMPUTER-AIDED ACQUISITION AND LOGISTICS SUPPORT |
| • | 7D3-3-17 | 0036310 | C-17 INITIAL PROVISIONING |
| • | 7D3-3-18 | 0066413 | AFSC MANAGEMENT OF PROJECT ORDERS |
| • | 7D3-3-19 | 0265319 | EVALUATION OF TDY TRAVEL MANAGEMENT |
| • | 7D3-3-20 | 0016312 | AIR FORCE MANAGEMENT OF CLASS II MODIFICATIONS |
| • | 7D3-3-21 | L90-629 | REVIEW OF THE TECHNICAL PERFORMANCE INCENTIVES |
| • | 7D3-3-22 | 1036322 | REV OF THE DAES FOR MAJOR ACQ PROG |
| • | 7D3-3-23 | L91-140 | AWARD FEE PAYMENTS AT ASD |

7D3-3-24 1196617 REV OF AFSC'S COMM-COMP SYS TARGET OPERATING ENVIRONMENT

7D3-3-25 1046413 USE OF APBs FOR ACQUISITION CATEGORY II, III, & IV PROGRAMS

| •• | FILE# | Project# | TITLE FOR: DODIG |
|----|----------|--------------|--|
| • | 7D3-5-01 | 7AB-018 | FLIGHT TEST RANGE |
| • | 7D3-5-02 | 7HA-047 | C-17A COMPONENT BREAKOUT PROG FOR A/C SYSTEMS |
| • | 7p3-5-03 | 6CD-033 | AUDIT OF CONTRACTOR MAKE OR BUY |
| • | 7D3-5-04 | вма-0009 | ACQUISITION OF THE C-17A AIRCRAFT |
| • | 703-5-05 | 8AE-0051-4 | AUDIT OF THE EFFECTIVENESS OF THE DAB PROCESS |
| * | 7D3-5-06 | 9AP-0044 | COMPONENT BREAKOUT PROGRAM FOR MAJOR SYSTEMS |
| • | 7D3-5-07 | ORA-8001 | SEL ACQ ACTIONS ON C-17 A/C |
| • | 703-5-08 | OCD-0049 | LONG LEAD CONTRACTING FOR PRODUCTION |
| • | 7p3-5-09 | OCH-0017 | SUB'S PRICES ON FIRM FIXED PRICE CONTR AWARDED TO MCDD |
| • | 703-5-10 | OLB-0058 | AUDIT OF AIRCRAFT DEPOT MAINTENANCE PROGRAMS |
| • | 703-5-11 | AUDIT REVIEW | AUDIT COVERAGE OF MAJOR ACQUISITION PROGRAMS |
| • | 7D3-5-12 | MAR REVIEW | RESOURCES EXPENDED IN SUP OF MAJOR A/C REV |
| • | 703-5-13 | OAB-0068 | AUDIT OF FOREIGN WEAPONS EVALUATIONS |
| • | 703-5-14 | 1AE-5006 | AUDIT OF C/SCSC DATA ON MAJOR WEAPON SYSTEMS |
| • | 703-5-15 | 1CH-0038 | REASONABLENESS OF PRICES PAID FOR PURCHASED PARTS AT DAC |
| • | 7D3-5-16 | OLB-0087 | MAINTENANCE AND DIAGNOSTIC SYSTEMS |

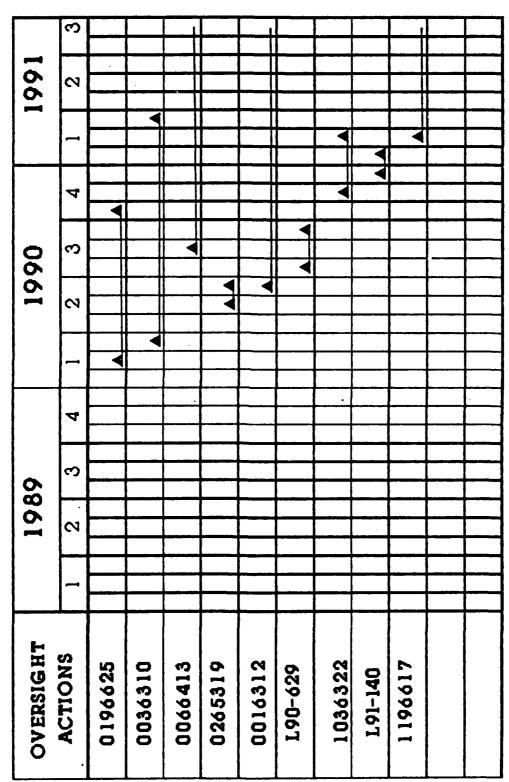
| ** | FILE# | PROJECT# | TITLE FOR: GAO |
|----|----------|---------------------|--|
| • | 7D3-2-01 | 392179 | FY87 PRESIDENT'S BUDGET DOCUMENTATION |
| • | 7D3-2-02 | 392206 | ACQUISITION OF THE C-17 AIRCRAFT |
| • | 7D3-2-03 | 392570 | IMPACT OF REDUCTION IN USAGE OF CHLOROFLOUROCARBONS |
| • | 7D3-2-04 | 392280 | REVIEW OF C-17 AIRCRAFT WING COMPETITION |
| • | 7D3-2-05 | 392345 | GEOGRAPHIC DISPERSION OF MAJ WEAPONS SYS CONTR |
| • | 7D3-2-06 | 395622 | SURVEY OF C-17 SUPPLIER MANAGEMENT |
| • | 7D3-2-07 | 392284 | FY88 BUDGET REVIEW |
| • | 7D3-2-09 | 396515 | SURVEY OF DOD MANAGEMENT WARRANTIES |
| • | 7D3-2-11 | 917118 | EXAM OF AF FIN STMTS FOR FY88 |
| • | 7D3-2-12 | 392372 | AF'S PROGRESS IN MEETING C-17 COST, SCHED & PERF GOALS |
| • | 7D3-2-13 | 393279 | REVIEW OF MAJOR WEAPON SYSTEMS |
| • | 7D3-2-15 | 392337 | AUDIT TO MINIMIZE THE GENERATION OF HAZARDOUS WASTE |
| • | 7D3-2-16 | 392388 | FY89 A/C PROCUREMENT, AF APPN REQUEST |
| • | 7D3-2-18 | 396011 | REV OF DOD'S EFFORTS TO MAX USE OF NON-DEV ITEMS |
| • | 7D3-2-19 | 396219 | SURVEY OF A/C ENGINE RED PROGRAMS |
| • | 7D3-2-20 | 396714 (SEE 396301) | DOD IMP OF PACKARD COMM ACQ PERS REFORM/DOD ACQ ORG |
| • | 7D3-2-21 | 396301 (SEE 396714) | DOD ACQUISITION ORGANIZATION AND PROCESS |
| • | 7D3-2-22 | 392452 | FY90 BUDGET REVIEW |
| • | 7D3-2-23 | 396227 | DOD EARLY OPERATIONAL ASSESSMENT OF WEAPON SYSTEMS |
| • | 7D3-2-24 | 392482 | SURVEY OF C-17 NEAR-TERM PRODUCTION GOALS |
| • | 7D3-2-25 | 396133 | SURVEY OF DOD'S POLICY ON SPEC TOOLING & TEST EQUIP |
| • | 7D3-2-26 | 392529 | SURVEY OF C-17 RESEARCH & DEVELOPMENT COSTS |
| • | 7D3-2-27 | 396725 | REVIEW OF DOD'S WEAPON PRODUCTION RATES |

| • | 7D3-2-28 | 510451 | SURVEY OF DEFENSE OVERSIGHT OF EMBEDDED COMPUTER SYSTEMS |
|---|----------|--------|--|
| • | 7D3-2-29 | 392513 | MGMT CONTROLS OF CONTINGENT LIABILITIES |
| • | 7D3-2-30 | 392543 | REVIEW OF THE AIR FORCE'S FY91 BUDGET REQUEST |
| * | 7D3-2-31 | 392564 | REV OF C-17 MAR STUDY ASSUMP, DATA, & CONCLUSIONS |
| • | 7D3-2-32 | 510619 | SURVEY OF EMBEDDED COMPUTER SOFTWARE |
| • | 7D3-2-33 | 392597 | SURVEY OF C-17 COST ESTIMATES |
| • | 7D3-2-34 | 396735 | SURVEY OF PRODUCTION PROBLEMS IN DEFENSE SYSTEMS |
| • | 7D3-2-35 | 392602 | INFO ON DOD CONTRACTS WITH MCDONNELL DOUGLAS |

Appendix B: Timeline of Oversight Actions

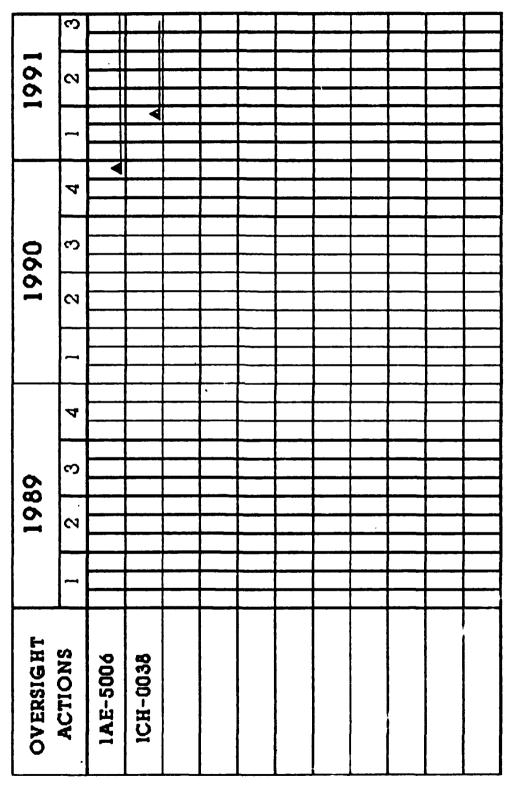
| 10 | 1989 1990 | 2 3 4 1 2 3 | | | | ▼ | | | | ▼ | | | • |
|------|-----------|-------------|---------|---------|---------|----------|--------|---------|---------|----------|---------|---------|---------|
| AFAA | OVERSIGHT | ACTIONS 1 | 7036316 | 9066410 | 1000906 | L89-501 | 100006 | 9126123 | L89-492 | 0076412 | 1000616 | 9210003 | L90-603 |

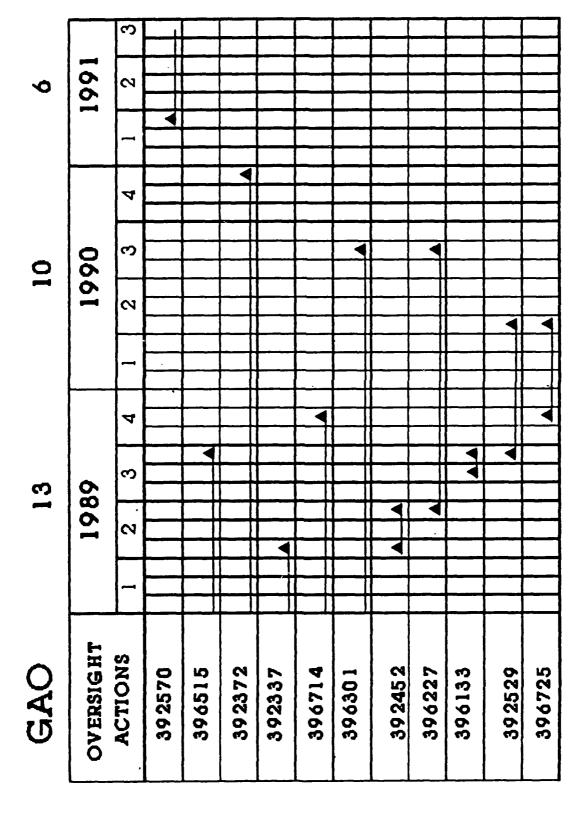
AFAA



| 100 10 | S | 1989 | 2 3 4 1 | * | • | | | | | |
|-------------|----|------|---------|----------|---|---|----------|---|----------|--|
| 4 | 10 | 1990 | | | | | - | • | * | |
| | | | 4 | | | 4 | | | | |
| 01 66 7 | | _ | 3 | | | | | | | |

DODIG





GAO

| OVERSIGHT | | 1989 | 8 | | | 19 | 1990 | | | _ | 1661 | - | |
|-----------|---|------|----------|---|----------|----------|----------|---|---|---|------|---|-----|
| ACTIONS | J | 2 | 3 | 4 | 1 | 2 | 3 | 4 | | | 2 | | က |
| 510451 | | | ▼ | | | | 4 | | | | | | |
| 392513 | | | ▼ | 4 | | | | | | | | | |
| 39 2543 | | | | | | 4 | | | 4 | | | | |
| 392482 | | | * | | | | 4 | | | | | | |
| 392564 | | | | | V | | | | | | | | |
| 510619 | | | | | | | | 4 | | | | | |
| 39 259 7 | | | | | | | | | 4 | | | | - 1 |
| 396735 | | · | | | | | | | 4 | | | | |
| 392602 | | | | | | | | | 4 | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

Appendix C: Manhour and Duration for Each Agency Action

AFAA SUMMARY

| OVERSIGHT ACTION | | TOTAL MHR BY INSPECTI | | DURATION OF ACTION (MOS.) |
|---------------------|---|-----------------------|----------|---------------------------|
| AUD REV | | 2.50 | | 1.00 |
| 6030009 | | 49.50 | | 6.00 |
| 7036316 | * | 139.00 | * | 40.00 |
| 7036329 | | 9.00 | | 16.00 |
| 8066415 | | 4.00 | | 0.50 |
| 9066410 | | 12.50 | | 14.60 |
| 9060001 | | 3.00 | | 2.30 |
| L89-501 | • | 1.50 | | 0.50 |
| 9030001 | | 3.00 | | 0.50 |
| 0216121 | | 13.25 | | 21.20 |
| L89-492 | | 2.00 | | 0.50 |
| 0076412 | | 4.50 | | 11.00 |
| 9190001 | | 3.00 | • | 0.50 |
| 9210003 | | 1.00 | | 0.50 |
| L90-603 | | 8.00 | | 8.80 |
| 0196625 | | 8.50 | | 13.70 |
| 0036310 | * | 68.75 | * | 16.00 |
| 0066413 | * | 14.75 | * | 11.00 |
| 0265319 | | 0.50 | | 0.50 |
| 0016312 | * | 1.00 | * | 14.00 |
| L90-629 | | 0.50 | | 1.50 |
| 1036322 | | 4.50 | | 2.50 |
| L91-140 | | 0.00 | | 0.50 |
| 1196617 | * | 16.50 | * | 5.50 |
| 1046413 | * | 1.00 | * | 0.50 |
| | | 25555555 | : | ======== |
| | | 371.75 | TOTALS | 189.60 |
| | | 22222222 | : | ========= |
| | | 14.87 | AVERAGES | 7.58 |

^{*} DENOTES THOSE OVERSIGHT ACTIONS THAT REMAIN OPEN

DODIG SUMMARY

| OVERSIGHT | | TOTAL MHR | | DURATION OF |
|---|---|-------------|----------|---|
| ACTIONS | | BY INSPECTI | ON | ACTION (MOS.) |
| ======================================= | | ========= | | ======== |
| | | | | |
| 07AB-018 | | 8.00 | | 0.50 |
| 07MA-047 | | 27.00 | | 4.00 |
| 06CD-033 | | 1.00 | | 20.00 |
| 08MA-0009 | | 204.00 | | 25.40 |
| 08AE-0051-4 | * | 3.50 | * | 24.50 |
| 09AP-0044 | * | 18.50 | * | 23.00 |
| ORA-8001 | | 261.00 | | 12.30 |
| OCD-0049 | * | 8.25 | * | 16.50 |
| OCH-0017 | * | 3.25 | * | 14.00 |
| OLB-0058 | * | 1.50 | * | 14.70 |
| AUD REV | * | 5.00 | * | 11.60 |
| MAR REV | * | 3.00 | * | 10.60 |
| OAB-0068 | * | 2.50 | * | 8.10 |
| O1AE-5006 | * | 31.00 | * | 7.00 |
| O1CH-0038 | * | 0.00 | * | 4.40 |
| OLB-0087 | * | 0.00 | * | 0.50 |
| | | ========= | | ======================================= |
| · | • | 577.50 | TOTALS | 197.10 |
| | | ========= | | ======== |
| | | 38.50 | AVERAGES | 13.14 |

^{*} DENOTES THOSE OVERSIGHT ACTIONS THAT REMAIN OPEN

GAO SUMMARY

| OVERSIGHT ACTION | | TOTAL MHR BY INSPECTIO | N | DURATION OF ACTION (MOS.) |
|---------------------|---|------------------------|--------|---------------------------|
| 392179 | | 7.00 | | 2.50 |
| 392206 | | 61.00 | | 24.00 |
| 392570 | | 28.00 | | 1.60 |
| 392280 | | 37.00 | | 11.00 |
| 392345 | | 7.00 | | 12.00 |
| 395622 | * | 0.00 | * | 1.00 |
| 392284 | | 1.00 | | 0.50 |
| 396515 | | 4.00 | | 24.00 |
| 917118 | | 3.00 | | 6.70 |
| 392372 | * | 187.75 | * | 45.50 |
| 393279 | | 23.00 | | 7.50 |
| 392337 | | 3.00 | | 14.00 |
| 392388 | | 21.50 | | 2.20 |
| 396011 | | 12.00 | | 0.50 |
| 396219 | | 1.50 | | 0.50 |
| 396714 | | 33.00 | | 13.00 |
| 396301 | | 0.00 | - | 0.20 |
| 392452 | | 1.50 | | 2.50 |
| 396227 | | 4.00 | | 0.50 |
| 392482 | | 284.25 | | 11.50 |
| 396133 | | 7.00 | | 0.50 |
| 392529 | | 127.75 | | 18.00 |
| 396725 | | 9.00 | | 13.00 |
| 510451 | | 3.25 | | 11.00 |
| 392513 | * | 2.00 | * | 18.00 |
| 392543 | | 29.50 | | 8.00 |
| 392546 | * | 0.50 | * | 10.00 |
| 510619 | * | 119.00 | * | 10.00 |
| 392579 | * | 57.25 | * | 7.00 |
| 396735 | * | 0.00 | * | 3.00 |
| 392602 | * | 11.00 | * | 9.00 |
| | | ========== | | ======== |
| | | 1085.75 | TOTALS | 288.70 |
| | | ========= | | ******** |

35.02 AVERAGES 9.31

^{*} DENOTES THOSE OVERSIGHT ACTIONS THAT REMAIN OPEN

OVERSIGHT ACTIONS TOTAL FIGURES

TOTAL SPO
MANHOURS

TOTAL OVERSIGHT DURATION (MONTHS)

==========

2035.00

675.40

AVERAGE SPO MHRS PER ACTION

28.26

9.38

Appendix D: Summary for Each Agency Oversight Action

OVERSIGHT SUMMARY

OVERSIGHT AGENCY: AFAA DATE: 3 DEC 86 -

4 MAY 37

SUBJECT: C-17 Warranties - Should be on the C-17 Overall Acq

Plan.

MANHOURS: 49.5

STATUS: Closed - No final report

REASON FOR OVERSIGHT: Centrally directed. The audit will focus on the mgt of the C-17 program. The first phase will consist of preparing background. determining if audit is necessary, and gaining insight into direction of audit. The three main items of interest are management objectives, efficiencies/economics. compliances.

DATA REQUESTED: PMP

ILSP

Config mgt plan

Master program schedules (TIER I & II)
Computer Resources Integrated Support plan
Test plan working group meeting minutes

Last three prog reviews

PMD

AFSARC, AF council or other doc w/ results of

the program milestone approvals

SOC and updates

Mission Element need statement and updates Required operational capabilities and updates Information on the C-17 warranty aspects on the engine, airframe and aircraft performance Copy of the C-17 contract and warranty brief

CPR information

C-17 tracking log

C-17 RFP status P&W commercial pricing letter C-17 annual est for 86 Engine fl17 annual est

for 87

SUMMARY OF OVERSIGHT: Looked at the areas described above. Discussed the C-17 Computer resources software dev mgt effort. Also looked at the total cost of the program. Seems throughout the discussions AFAA is looking at the overall acquisition in a general nature. In general discussed the Army's interest in the dev of the C-17. Also looked at how the MIS is being used in the mgt decision process. DAC/MIS interface was discussed. Another visit brought out the general history of the program with focus on the data items (CDRLs). Reviewed the ECPs of the program in particular the costs. Also looked at some of the technical areas of the program. Another visit looked at the engine unit costs. In another visit looked at the different CLINs and the relations of each to one another. Component breakout was discussed. Also discussed the engines in general for the contract pricing etc... This entire audit seems like a get smart investigation.

OVERSIGHT AGENCY: AFAA DATE: 8 OCT 88 -

14 FEB 90

SUBJECT: Acquisition of F117-PW-100 engine and related logistic

support

MANHOURS: 139

STATUS: Open - Audit report issued

REASON FOR OVERSIGHT: Centrally directed. Evaluate the acquisition strategy for the Fl17-pw-100 engine and its related logistics support to determine whether the strategy was economical and efficient. Specifically the acq plans for the fl17 spare engine modules and repair parts, interim contractor support intermediate and depot-level support equp installed engines, spare engines and engine data

DATA REQUESTED: C-17 system operational concept (81 version)

pw2037 and pw2040 differences

Economic price adjustment

f108 MEC contamination, 22 Jan 87 85 annual estimate-initial spares Buying of whole engines spares

Buying of spare engine parts

Est spare engine parts

Excerpts from R&M allocations, assessments and

analysis report Profit information

86 annual est on engine and initial spares

Source selection doc in relation to the engine

proc

FY88 PB AF1802 engine requirements

Rqmts allocation report

Design "

R&M ADS report

MOA between AF and Engine SPO

SUMMARY OF OVERSIGHT: Reviewed DAC subcontract with P&W. Looking at the decision to go CFE on lots I II & III. Preparation to develop a breakout plan should lead to a generally economical and efficient acq stat. Possible use of

GFE may hurt the warranty (system perf and reliability. Baseline schedule should be established concurrently with the aircraft baseline. With DAC subbing to P&W the AF feels they are getting a better price than if they went straight to P&W. SAF/AQ has authorized C-17 to breakout fll7 for lot III. Discussed warranty once again, maintainability incentive performance incentive profit sharing EPA. Recommendation is to direct C-17 to begin breakout of engines at lot III thereby saving app. \$10M.

OVERSIGHT AGENCY: AFAA DATE: 23 JUN 87 -

20 OCT 88

SUBJECT: Evaluation of C-17 Nonprimary aircraft requirements

MANHOURS: 9

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Centrally directed. Evaluate the accuracy of C-17 nonprimary aircraft requirements computations. Specifically, we reviewed the test, backup, training and attrition aircraft requirements by evaluating C-17 test program documentation, C-17 maintenance concept vs the concept for the C-5a and C-141B, requirements and computations. The subject was identified during research for project 7036316, C-17A aircraft acquisition management

DATA REQUESTED: Description of major avionics subsystems TEMP (already have) O&S data in the annual est.

SUMMARY OF OVERSIGHT: Initial conclusions from MAC. There should be 10 not 12 trng aircraft; 8-12 backup planes vs 18 reported Therefore, to get the total of 210 aircraft the primary of 180 should be higher. Wanted to know the initial spares list. Looks like they are fishing for new subjects for auditing. Results in brief were that the AFAA couldn't establish the accuracy of computations to determine the number of C-17 nonprimary authorized aircraft required. Although test aircraft requirements were accurately stated requirements for backup and training A/C may be overstated and attrition requirements are understated. AF didn't use an analytical process to establish the required number of C-17 backup, training, and attrition aircraft.

DATE: 7 JUN 88 -OVERSIGHT AGENCY: AFAA

30 JUN 88

SUBJECT: Acquisition of TOs from contractors

MANHOURS: 4

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Determine whether mgt actions implemented

in response to previous audit has

occurred. Specifically

Contractors report the complete status of

val as part of the monthly TO schedule

and status report

SPOs specify in weapon system contracts the TO validation method to be used The price of the TOs be negotiated apart form other data rgmts and placed on a

separate contract line item

DATA REQUESTED: Tech manual plan which is chapter 5 of the Integrated Support Plan

TO excerpt from the SOW

SUMMARY OF OVERSIGHT: Basically covered what is stated in the "Reason for Oversight" section with a result of no major findings.

OVERSIGHT AGENCY: AFAA DATE: 27 FEB 89 -

2 APR 90

SUBJECT: Contracting for Engineering services to support AF

Systems Command weapon systems acq

MANHOURS: 12.5

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Centrally directed. Objective of audit was to determine whether AFSC had established effective controls and procedures over the use of engineering services contracts. Specifically

The SOW adequately id the goods or service to acquired Engineering services contracts were properly used to obtain authorized services and products
Costs associated engineering services contracts were properly controlled
The internal controls over contract administration and surveillance were adequate

DATA REQUESTED: RFP TASK 7351-1

YCL eval of ISN response to RFP 12 FEB 88 AFSC fm 700 7 MAR 88 contract DD fms 250 29 APR 88 and 24 FEB 89 ISN prsentation viewgraphs for activation

ish prsentation viewgraphs for activation

planning, CSNAS, 8 Apr 88

ISN quarterly report

ISN top level networks/schedules dev approach 30 Nov ISN request for authorization to use

consultant

ISN task 11 CSNAS support enhancement

SUMMARY OF OVERSIGHT: Looked at above areas and resulted in following disclosures. That controls and procedures over the use of engineering services contracts were not effective. Even though the SOW clearly ID'd the services and products to be acquired, the contracts were not properly used to obtain authorized services and products. Found that AFSC was awarding service contracts against the FAR.

OVERSIGHT AGENCY: AFAA DATE: 22 MAR 89 -

6 JUL 89

SUBJECT: Support equipment illustration processing

MANHOURS: 3

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Determine whether conditions in the subject area warrant an audit. Thru the survey AFAA will determine whether requirements for SEIs are effectively processed, tracked and placed on contract

DATA REQUESTED: No data was requested

SUMMARY OF OVERSIGHT: No discrepancies were found and audit work is completed

OVERSIGHT AGENCY: AFAA DATE: 14 SEP 39 -

29 SEP 89

SUBJECT: Selective review of the Modular Automatic Test

Equipment

MANHOURS: 1.5

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: the survey will determine whether the program office is utilizing MATE system procedures for automatic test system acqs.

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: The C-17 has an '86 waiver in using MATE. As a result, the AFAA wanted to know the rationale for the waiver and what is being done in its place.

OVERSIGHT AGENCY: AFAA DATE: 11 MAY 89 -

13 NOV 89

SUBJECT: Selected review of Logistic support analysis

MANHOURS: 3

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Survey to determine whether conditions in the area warrant an audit. Determine whether ASD SPOs effectively address post production support issues during systems acquisition. The AFAA will determine whether the applicable LSA tasks are put on contract during the FSD and production phases of system acquisition. The C-17 was chosen form a judgemental sample taken form the ALMIS data base.

DATA REQUESTED: Contracts currently active
Award date of current contracts
Acq phase of program
Whether LSA tasks 402 and 403 are on contract

SUMMARY OF OVERSIGHT: An audit was determined to be appropriate on 11 May 89. Basically looked at above areas and findings in the final audit report were generalized with no specific reference to the C-17

OVERSIGHT AGENCY: AFAA DATE: 5 JUN 89 -

12 MAR 91

SUBJECT: F117 spare engine requirements for C-17 aircraft

MANHOURS: 13.25

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Centrally directed. The objective of the survey was to determine if an audit was necessary. The areas covered were the accuracy of data used in spares requirements computations, the maintenance concept planned to support the F117 engine.

DATA REQUESTED: Engine computations and all other documentation supporting the number of spare engines required to support the C-17

Maintenance concept study - Feb 87 and all other pertinent info supporting the decision to use the three-level maintenance concept for the F117 engines

Spare requirements briefing
F117 Engine shop vsit estimate
P&W monthly PW2000 Report
F117 spare engine requirements for 2 levels of maintenance
P&W commercial data and warranty summary
Spare engine requirements computation
DD Form 1802

SUMMARY OF OVERSIGHT: The survey covered the above areas and became a formal audit in August of 89. The scope of the audit included accuracy of spare engine and engine module computations, and adequacy of Fl17 engine maintenance concept planning. The results were that the engine removal rate was inflated while other inconsistencies in the requirements computation process still overstated requirements by 32 spare engines and quick engine change kits. Recommendation to use wartime mission profiles in the mature engine removal rate computation is applicable at all levels.

OVERSIGHT AGENCY: AFAA DATE: 20 JUL 89 -

21 JUN 90

SUBJECT: Accuracy of selected acquisition reports (SARs)

MANHOURS: 2

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: The objective of the audit was to determine the accuracy of SARs. Work involved reviewing the timeliness of reporting; the correctness of the format; accuracy of reviews by ASD/AC; and, accuracy in reporting the dollars in the SAR. The survey is local

DATA REQUESTED: SAR working papers

Funding guidance messages

OSD inflation rates supporting Dec 88 SAR

SUMMARY OF OVERSIGHT: No discrepancies were found. Therefore, the audit survey was closed.

OVERSIGHT AGENCY: AFAA DATE: 13 SEP 89 -

21 AUG 90

SUBJECT: Planning for quality assurance

MANHOURS: 4.5

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: Centrally directed audit. The overall objective was to evaluate whether ASD adequately considered quality assurance during the contract solicitation and award process. In particular, ASD personnel were evaluated whether they

- identified and considered contractor quality assurance during source selection

- included quality assurance requirements in production contracts

- identified, tracked and reported quality-related costs.

DATA REQUESTED: Evaluations for the first through fourth award fee periods

SUMMARY OF OVERSIGHT: Looked at the relationship between Award Fee and TQM. It was an audit research to see if TQM could be audited. No findings for corrective actions.

OVERSIGHT AGENCY: AFAA DATE: 5 OCT 89 -

3 NOV 89

SUBJECT: Management of embedded computers

MANHOURS: 3

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: Objective of the audit was to determine is SPOs were using the 800 series regulations to procure PCs in the SPO. (Was an audit warranted)

DATA REQUESTED: Program Management Directive (PMD), 10 May 89 Computer Resource Life Cycle Management Plan (CRLCMP), 15 Jan 89

SUMMARY OF OVERSIGHT: No real findings or announcement of any follow-on audit. I assume everything was in order.

OVERSIGHT AGENCY: AFAA DATE: 5 OCT 39 -

3 NOV 89

SUBJECT: Management of embedded computers

MANHOURS: 3

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: Objective of the audit was to determine is SPOs were using the 800 series regulations to procure PCs in the SPO. (Was an audit warranted)

DATA REQUESTED: Program Management Directive (PMD), 10 May 39 Computer Resource Life Cycle Management Plan (CRLCMP), 15 Jan 89

SUMMARY OF OVERSIGHT: No real findings or announcement of any follow-on audit. I assume everything was in order.

OVERSIGHT AGENCY: AFAA DATE: 10 OCT 89 -

28 FEE 90

SUBJECT: Management and use of telephone control credit cards

MANHOURS: 1

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: Objective of the audit was to determine if telephone credit cards were properly used. Whether the cards were used for local calling during off-duty hours for unofficial business.

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: Not very much usage of calling cards in the SPO. Therefore, AFAA decided not to include in the audit

OVERSIGHT AGENCY: AFAA DATE: 31 JAN 90 -

25 MAR 91

SUBJECT: Review of Ring Laser Inertial Navigation Units

MANHOURS: 8

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: The overall objective is to determine whether all potential users of the standard INU have been given adequate consideration and if any waivers permitting the use of an alternate INU were properly processed. Also to determine why programs weren't using the standard INU.

DATA REQUESTED: Waiver documentation on why the Inertial Replaceable Unit was being used instead of the INU.

HQ AFSC/SDX letter C-17 Inertial Waiver

Approval

ASD/CS letter, C-17 Standard Inertial Waiver YC letter, Request for C-17 Standard Inertial

Waiver

Inertial LCC Review Copy Baseline memo

Cost estimating methodology

SUMMARY OF OVERSIGHT: INU can't process the info quickly enough, and therefore, constitutes a safety hazard. Also looked at the Defense Enterprise program and the waiver process. AFAA determined that the C-17 waiver permitting the non-use of the standard INU was not coordinated by HQ AFLC/MMI or approved by SAF/AQ. Assure a future system of coordination that will be in compliance with AFR 800-28.

OVERSIGHT AGENCY: AFAA DATE: 31 JAN 90 -

25 MAR 91

SUBJECT: Review of Ring Laser Inertial Navigation Units

MANHOURS: 8

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: The overall objective is to determine whether all potential users of the standard INU have been given adequate consideration and if any waivers permitting the use of an alternate INU were properly processed. Also to determine why programs weren't using the standard INU.

DATA REQUESTED: Waiver documentation on why the Inertial Replaceable Unit was being used instead of the INU.

HQ AFSC/SDX letter C-17 Inertial Waiver Approval

ASD/CS letter, C-17 Standard Inertial Waiver YC letter, Request for C-17 Standard Inertial

Waiver

Inertial LCC Review Copy Baseline memo

Cost estimating methodology

SUMMARY OF OVERSIGHT: INU can't process the info quickly enough, and therefore, constitutes a safety hazard. Also looked at the Defense Enterprise program and the waiver process. AFAA determined that the C-17 waiver permitting the non-use of the standard INU was not coordinated by HQ AFLC/MMI or approved by SAF/AQ. Assure a future system of coordination that will be in compliance with AFR 800-28.

OVERSIGHT AGENCY: AFAA DATE: 24 FEB 90 -

30 OCT 90

SUBJECT: Computer-aided acquisition and logistics support

MANHOURS: 8.5

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: Centrally directed. The objective was to evaluate the actions taken to implement CALS within ASD. Specifically were the taskings from the Taft Memorandum accomplished in a timely effective manner. AF wide audit. Focus for the C-17 was on the G-file activity

DATA REQUESTED: AFLC/LMSC/CC letter indicating AFTOMS support for C-17 auto G-file project
Letter providing AFTOMS schedule
DAC letter requesting conversion of TO data to CALS compliant format

SUMMARY OF OVERSIGHT: Response was adequate to the Taft Memo. Documentation reviewed indicated that respective program offices were actively working to implement CALS direction

OVERSIGHT AGENCY: AFAA DATE: 23 MAR 90 -

19 MAR 91

SUBJECT: C-17 Initial Provisioning

MANHOURS: 65.25

STATUS: Closed - Talked about a final report, but didn't see

one

REASON FOR OVERSIGHT: The overall objective of the survey was to determine whether the subject warrants an audit. The areas covered were: Methodologies used to compute initial spares requirements, accuracy of factors used to compute initial spare requirements, allocation of initial spares assets among authorized users
Audit was centrally directed. Local office chose C-17.

DATA REQUESTED: System specs.

Worksheets

Comps ICS PIO

R&M Data

Various part drawings PIOs for WRM PIOs WRM computations Various Clins

Delivery schedules

Maintenance data list (MTBD)

Mathematical computation for MRR1

PMD

Provisioning documentation ERILSA program mgt

report

Prov packages schedule Logistics plans Vol 1-8 GFE/Form 8 spares log

Copy of C-17 PMD and Form 56 GFE Mission Equipment list

ICS spares report

Various other letters, reviews and models in

relation to spares

SUMMARY OF OVERSIGHT: Auditor had very little experience with initial provisioning. Therefore, spent time with logistics directorate before proceeding. Locked at ERILSA extensively in the areas of spares determination, WRM required to support the C-17, Explanation of computations with AMDAHL to determine spares requirements. Officially an audit in Aug 90. The audit looked at the adequacy of provisioning computations, assess the adequacy of provisioning for initial spares support lists, WRM requirements and gov't furnished production assets

OVERSIGHT AGENCY: AFAA DATE: 16 AUG 90 -

SUBJECT: AFSC management of project orders

MANHOURS: 14.75

STATUS: OPEN

REASON FOR OVERSIGHT: Centrally directed. Determine whether project orders are adequately managed within ASD. Specifically, audit work was limited to the initiation and control of project orders to determine whether: Project orders are used for appropriate purposes, excess project order funds are deobligated at physical completion and ASD accurately accounts for project order transactions.

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: Looked at the areas above with the following results. Project orders not always adequately managed by ASD. Project order advance planning documentation was not always available, project orders were not always used for appropriate purposes, remaining funds were not always deobligated at physical completion of the project and project order funding included excess funds

OVERSIGHT AGENCY: AFAA DATE: 3 MAY 90 -

4 JUN 90

SUBJECT: Evaluation of TDY travel management

MANHOURS: .5

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Part of Centrally directed audit.
Objective was to check and see if travel was authorized and

official in various TDYs

DATA REQUESTED: Information on specific travel

SUMMARY OF OVERSIGHT: Documents were provided. No further

contact.

OVERSIGHT AGENCY: AFAA DATE: 15 JUN 90 -

SUBJECT: Air Force Management of class II modifications

MANHOURS: 1

STATUS: OPEN

REASON FOR OVERSIGHT: Centrally directed. Evaluate the effectiveness of selected aspects of Class II modification within AFSC. Specifically will determine whether adequate consideration is being given to AF in-house accomplishment of Class II mods., appropriate contracting strategy is developed for Class II mods accomplished via contracts, and mod kits removed from the A/C once mod is over

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: Not much activity on Audit.

OVERSIGHT AGENCY: AFAA DATE: 20 JUL 90 -

6 SEP 90

SUBJECT: Review of the technical performance incentives

MANHOURS: .5

STATUS: Closed - No final report issued

REASON FOR OVERSIGHT: Survey to determine whether audit is required. Determine if in compliance with FAR when performance incentives are used in ASD contracts

DATA REQUESTED: All contracts with tech performance incentives

Max incentive fee for above contracts Requirement that contract pertains to

RFPs that include Tech performance incentives

Max incentive fee for above contracts
Requirements that contract pertains to

SUMMARY OF OVERSIGHT: Information was provided and audit survey was complete with no formal audit.

OVERSIGHT AGENCY: AFAA DATE: 19 NOV 90 -

4 FEB 91

SUBJECT: Review of the Defense Acquisition Executive Summary

for Major Acquisition Programs

MANHOURS: 4.5

STATUS: Closed - Suspended

REASON FOR OVERSIGHT: Centrally directed. Methods used to verify the data contained in the DAES report. How the SPO calculates their model EAC and if it was included in prior DAES reports

DATA REQUESTED: SPO model EAC and ASD model EAC numbers Jan-Sep 90

SUMMARY OF OVERSIGHT: Suspended under direction of DoDIG because of a recently announced review. As a result, no formal recommendations or reports were accomplished

OVERSIGHT AGENCY: AFAA DATE: 13 DEC 90 -

20 DEC 90

SUBJECT: Award Fee Payments at ASD

MANHOURS: 0

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Review award fee payments at ASD. The purpose is to determine whether award fee provisions at ASD are effectively managed. Specifically, the review will be of the controls over award fee type contracts, financial management of award fees and the fee approval process.

DATA REQUESTED: List of contracts with award fee provisions that have been awarded since 1986.

SUMMARY OF OVERSIGHT: Oversight didn't get very far. It was stated that the audit stated above didn't apply to the C-17 because the audit focuses on post 1986 contracts where as C-17 are all pre 1986 contracts.

OVERSIGHT AGENCY: AFAA DATE: 28 FEB 91 -

SUBJECT: Review of AFSC's Communication-Computer Systems Target

Operating Environment

MANHOURS: 16.5

STATUS: Open

REASON FOR OVERSIGHT: Centrally directed. Overall objective is to evaluate AFSC's planning for and actions taken to achieve its C-CS target operating environment goals and objectives. Determine if strategies formulated and actions taken by field level organizations

are adequate to achieve target operating environment goals and objectives and command C-CS requirements are satisfied using standard requirements contracts

DATA REQUESTED: C-17 MIS overview

C-17 MIS applications SPO computer inventory C-CS contract mods. C-17 contract mods.

SUMMARY OF OVERSIGHT: Continue to look into above areas. Discussing MIS information

OVERSIGHT AGENCY: AFAA DATE: 28 FEB 91 -

SUBJECT: Review of AFSC's Communication-Computer Systems Target

Operating Environment

MANHOURS: 16.5

STATUS: Open

REASON FOR OVERSIGHT: Centrally directed. Overall objective is to evaluate AFSC's planning for and actions taken to achieve its C-CS target operating environment goals and objectives. Determine if strategies formulated and actions taken by field leve' organizations are adequate to achieve target operating environment goals and

are adequate to achieve target operating environment goals and objectives and command C-CS requirements are satisfied using standard requirements contracts

DATA REQUESTED: C-17 MIS overview

C-17 MIS applications SPO computer inventory C-CS contract mods. C-17 contract mods.

SUMMARY OF OVERSIGHT: Continue to look into above areas.

Discussing MIS information

OVERSIGHT AGENCY: AFAA DATE: 10 JUN 91 -

SUBJECT: Use of Acquisition Program Baselines for Acquisition

Category II, III, IV Programs

MANHOURS: 1

STATUS: Open

REASON FOR OVERSIGHT: Requested by SAF/AQ

DATA REQUESTED: No data requested.

SUMMARY OF OVERSIGHT: Not very much information. Audit is still

in early stages.

OVERSIGHT AGENCY: DODIG DATE: 2 JUN 87 -

23 JUN 87

SUBJECT: Flight Test Ranges

MANHOURS: 8

STATUS: Closed - No final report issued

REASON FOR OVERSIGHT: Internal. Objective was to evaluate the overall operation of flight test facilities within the DOD, including an evaluation of flight test methodology, work load and capacity at each test facility, funding procedures and staffing levels.

DATA REQUESTED: C-17 Test and Evaluation Master Plan

C-17 Organizational chart

C-17 Overview

SUMMARY OF OVERSIGHT: There wasn't a great deal of activity once the documentation was provided. Folder indicates no findings or recommendations.

OVERSIGHT AGENCY: DODIG DATE: 25 MAR 87 -

12 JUN 87

SUBJECT: C-17 Component Breakout Program for Aircraft Systems

MANHOURS: 27

STATUS: Closed - No final report issued

REASON FOR OVERSIGHT: Audit survey. Determine if the military services are performing comprehensive component breakout reviews of aircraft systems in accordance with the FAR and DOD guidance

DATA REQUESTED: Acq plan

Subcontracting plan Make-or-buy plan

Annual Component Breakout Report for he

previous 3 yrs.

Component breakout program milestone schedule

Second source for C-17

Dual Source C-17 engine study C-17 SPO support equipment plan

Breakout candidates

Local Mfg items

Component breakout report O&I support equip

GFE list (Attch 29)

FSD SOW ICS plan

PMP

SUMMARY OF OVERSIGHT: Since in early FSD don't have a component program. 60% subcontracted. A great deal of GFE for the effort.

Results include: Some component breakout is occurring but more extensive is needed. Not documented according to guidance, not reviewed according to guidance. Further audit work was suspended so that aircraft systems in a DOD wide audit could be included. No recommendations were made.

OVERSIGHT AGENCY: DODIG DATE: 1 JUL 87 -

1 MAR 89

SUBJECT: Audit of Contractor Make or Buy

MANHOURS: 1

STATUS: Closed - No final report issued

REASON FOR OVERSIGHT: Determine if contracting officers are appropriately administering the make or by programs at the various contractor of first tier subcontractor locations in accordance with the FAR. Also determine if contracting officers obtained and relied on tech input from the production/Industrial Specialists and the DCAA when appropriate. Further will determine if contractors followed proposed make or buy programs or, if not, obtained approval for variation from PCO.

DATA REQUESTED: Modification that exercises the Long Lead Option for Lot I.

SUMMARY OF OVERSIGHT: Throughout the folder the final report is referenced and yet there is not copy of one in the folder.

OVERSIGHT AGENCY: DODIG DATE: 2 NOV 87 -

15 DEC 89

SUBJECT: Acquisition of C-17A Aircraft

MANHOURS: 204

STATUS: Closed - Final Report issued

REASON FOR OVERSIGHT: To evaluate the effectiveness of acquisition planning and the execution of the program in its full-scale development phase. IG reviewed program management efforts pertaining to critical design reviews; program management organization; logistics; test and evaluation; mission critical computer resources; manufacturing; fleet integration; cost estimating; and scheduling; program management element approach

DATA REQUESTED: Separate list is complete (over 140 documents)

SUMMARY OF OVERSIGHT: The focus was on nine elements of program management that were critical to the full-scale development phase of the C-17 aircraft. The status of mission critical computer resources, logistics, test and evaluation, manufacturing, fleet integration, open items from prior reviews, cost realism, acquisition strategy and its effect on program management office staffing and schedule adequacy. Biggest risk to the program was the timely development of software that properly performs all required functions. Large concern about the amount of software that must be developed. There are also funding and technical challenges that could delay the deployment of the aircraft. The three primary concerns in this area are funding stability, software development and integration, and aircraft weight. They then go through the history of the program in each above area and discussed the reasons for the various delays in relation to each above area and the reason of why it is in the top three risk categories. AF planning for integration into the airlift fleet was adequate. Of the six program management elements reviewed during the verification phase of the audit,

it was determined that there weren't any reportable weaknesses regarding open items from prior reviews, cost realism, acquisition strategy and its effect on program management office staffing, and schedule adequacy. Therefore, findings are consistent. Looked at FY87-90 budget estimate methodology and found it to be adequate. TEMP to determine flyability in all weather efore milestone IIIB was determined to adequate.

OVERSIGHT AGENCY: DODIG DATE: 22 SEP 88 -

SUBJECT: Audit of the Effectiveness of the DAB Process

MANHOURS: 3.5

STATUS: Open - Audit report issued

REASON FOR OVERSIGHT: Evaluate the effectiveness of the DAB process and compliance with applicable DoD directives and instructions. Internal controls were also evaluated

DATA REQUESTED: Summary Program Master Schedule
C-17 SPO Test briefing
C-17 Baseline Correlation Matrix
C-17 Warranty charts
Delivery Dates of lots I - IV

SUMMARY OF OVERSIGHT: The recommendations are as follows (many still are in dispute with the SPO): Delay milestone IIIA decision due to program risk and cost unknowns, minimal aircraft to verify production costs and capability and provide test resources needed to conduct operational testing; require AF to revise TEMP to include valid operational effectiveness measures and thresholds and a testing phase dedicated to evaluating the operational mission effectiveness of the C-17; require C-17 conventional Systems Committee to conduct a program review prior to approval of each production lot; require AF to include an operational Readiness evaluation in the Decision Coordinating Paper and conduct the Operational Readiness Evaluation prior to Milestone IIIB. Follow-up is occurring on the recommendations.

OVERSIGHT AGENCY: DODIG DATE: 12 SEP 89 -

SUBJECT: Component Breakout Program for Major Systems

MANHOURS: 18.5

STATUS: Open - Final report issued - working follow-ups

REASON FOR OVERSIGHT: Self-initiated audit by the Contract Management Directorate. Overall objective was to determine if the Services were performing adequate component breakout reviews and aggressively pursuing component breakout on major systems. Evaluate the validity of the reasons for not breaking out components while identifying added costs to DoD resulting form procurement of components from the prime rather than the actual manufacturer; conversely, identify management costs occasioned by breakout. Focus was to be on programs already in production where the plan could be reviewed.

DATA REQUESTED: Airframe suppliers

Component breakout report

Acquisition plan

Price negotiation memo

Make or buy plan

GFE listing

Source Selection status

SUMMARY OF OVERSIGHT: C-17 was not in production yet. Therefore, there was no final CB plan found a 416k study was not necessary (C-17 says already knew that). Say there is an existing model that does the same thing (1986 contract). Use the 1986 model and save 416k. C-17 doesn't feel the 86 contract item isn't effective enough to help the decision maker. Finds no internal control weaknesses. A great deal of hostility back and forth with concurrence and nonconcurrence. Going to mediation to resolve dispute. Final report states that component breakout will be considered after the operational testing.

OVERSIGHT AGENCY: DODIG DATE: 24 OCT 89 -

2 NOV 90

SUBJECT: Selected Acquisition Actions on the C-17 Aircraft

MANHOURS: 261

STATUS: Closed - Final Report Issued

REASON FOR OVERSIGHT: In response to a DoD Hotline allegation that the AF inappropriately exercised a contract option in July 1989 to buy four C-17 aircraft for \$691 million and that the status of C-17 software development was worsening. The objectives of the audit were to review the circumstances and documentation relating to the C-17 aircraft that were procured in July 89 and to assess the status of software development for selected C-17 sybsystems. Also was the program development schedule realistic. Also evaluated was compliance with internal control applicable to the C-17 program

DATA REQUESTED: List is over 100 documents in relation to overall program.

SUMMARY OF OVERSIGHT: During the audit the DODIG obtained information on the CDR done in April 1989 for the C-17 mission computer software and on the development of software for selected C-17 subsystems. Records of C-17 program reviews dated form Aug 88 through Feb 90 and documentation dated form Dec 85 through Feb 90, which included program plans, development schedules, and the C-17 acquisition program. a brief background on related audits. SPO exercised option to buy four C-17s without DAC completing the required CDR of all mission computer software. Unless the mission computer software is passed then the logical flow of developmental to test and evaluation will be further delayed. DAC had not fully accomplished technical requirements to meet contractual milestones for the development of the C-17 aircraft and had not prepared an adequate integration test plan for the development and integration of software for the avionics system.

OVERSIGHT AGENCY: DODIG DATE: 5 MAR 90 -

SUBJECT: Long Lead Contracting for Production

MANHOURS: 8.25

STATUS: Open

KEASON FOR OVERSIGHT: Internally generated review. The reason for the audit was that in 1984 a major AF program used long lead funds to procure other than long lead items. The objectives of the audit will be to determine if DoD activities are following established policies and appropriation act authority regarding long lead contracting and if they are suing this method of contracting ion an effective and efficient manner. It will also look at applicable internal control procedures.

DATA REQUESTED: List of subcontractors to which long lead funds have been given

SUMMARY OF OVERSIGHT: Only real documented discussion is on Option exercise dates and methods for lot 1-3 and status of lot III

OVERSIGHT AGENCY: DODIG DATE: 1 JUN 90 -

SUBJECT: Subcontract Prices on Firm-Fixed-Price Contracts

Awarded to McDonnell Douglas Corporation

MANHOURS: 3.25

STATUS: Open - Draft report issued

REASON FOR OVERSIGHT: Internally generated review. The objective of the audit will be to compare proposed and negotiated subcontractor prices and determine reasons for significant variances. Applicable internal control will be evaluated.

DATA REQUESTED: Price Negotiation Memorandum
Cover sheet from contract

SUMMARY OF OVERSIGHT: The audit only covers those programs that are FFP and the C-17 program is FPIF. Only a few CLINS referring to IMIP are FFP.

OVERSIGHT AGENCY: DODIG DATE: 16 MAY 90 -

SUBJECT: Audit of Aircraft Depot Maintenance Programs

MANHOURS: 1.5

STATUS: Open

REASON FOR OVERSIGHT: The audit was requested by the Deputy Assistant Secretary of Defense (Logistics), Office of the Assistant Secretary of Defense (Production and Logistics). The primary objective of the survey was to evaluate the maintenance programs that were designed to reduce depot maintenance costs. Specifically, the audit will evaluate the effectiveness of the implementation of the Reliability Centered Maintenance and Aircraft Service Period Adjustment Programs and determine if those programs are meeting their objective of reducing costs. The audit will also evaluate the impact of these maintenance programs on mission capability.

DATA REQUESTED: Reliability Centered Maintenance (RCM) MSG-3

Approach Structure Package

MSG-3 Systems Package

MSG-3 Zonal Package for Zone 730

SUMMARY OF OVERSIGHT: Discussion has thus far focused on the above data in the "Data Requested" section.

OVERSIGHT AGENCY: DODIG DATE: 27 JUL 90 -

SUBJECT: Audit Coverage of Major Acquisition Program

MANHOURS: 5

STATUS: Open

REASON FOR OVERSIGHT: The Under Secretary of Defense for Acquisition expressed concern about a perceived problem of "overauditing" of many DoD programs by the Departments internal auditors. A review is then initiated to determine whether overauditing exists and, if so, what improvements are necessary in the way such audits are scheduled and coordinated. The review will examine the audit coverage given to those programs in recent years by the DoD internal audit organizations and the GAO, and the effort make to coordinate coverage in order to avoid unnecessary overlap and duplication

DATA REQUESTED: List of areas that have experienced oversight

SUMMARY OF OVERSIGHT: Currently looking into the situation and gathering documentation.

OVERSIGHT AGENCY: DODIG DATE: 20 SEP 90 -

SUBJECT: Resources Expended in support of Major Aircraft Review

MANHOURS: 3

STATUS: Open

REASON FOR OVERSIGHT: No notification letter. Estimate the reason is to evaluate the C-17 resources expended/devoted to Major Aircraft Review.

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: The IG was verbally informed that approximately 1300 hours have been expended by the C-17 SPC on a total of 60 "what if" exercises and inquiries relating to the MAR. The 60 taskings were from the following sources:

51 Profiles tasked by SAF/AQ

- 6 Questions/Inquiries/Clarifications from SAF/AQ
- 1 Set of Questions from GAO
- 2 Sets of Questions from Congress

OVERSIGHT AGENCY: DODIG DATE: 29 NOV 90 -

SUBJECT: Audit of Foreign Weapons Evaluations

MANHOURS: 2.5

STATUS: Open

REASON FOR OVERSIGHT: The objective will be to evaluate the effectiveness of DoD's evaluation of foreign weapons systems, subsystems, and related equipment in reducing duplication of weapons research and development efforts, expediting schedules to field systems, improving performance, reducing unit cost of systems, and enhancing the commonality and interoperability of military equipment among NATO allies and other friendly nations. The report will address the Defense Management Report goal of reducing overhead costs while maintaining military strength.

DATA REQUESTED: Airframe supplier

Component Breakout Report

Acquisition Plan

Price Negotiation Memorandum

Make vs Buy Plan

GFE Listing

Source Selection Status Statement of Capability

Advance Buy effort for FY90 Production program,

SOW dated 21 DEC 88

SUMMARY OF OVERSIGHT: The audit will have little impact on the C-17 program due to the fact that most of the C-17 components are Contractor Furnished equipment (in-brief).

OVERSIGHT AGENCY: DODIG DATE: 31 DEC 90 -

SUBJECT: Audit of C/SCSC Data on Major Weapon Systems

MANHOURS: 31

STATUS: Open

REASON FOR OVERSIGHT: Audit is being initiated because of the recent DoD concerns about the adequacy of management oversight of cost and schedule performance on major weapon system programs. The overall objective of the audit will be to evaluate the effectiveness of the DoD use of contractor cost and schedule control system data on major weapon systems. Management controls applicable to the implementation, oversight and use of cost and schedule performance data will be reviewed.

DATA REQUESTED: T-1 Assembly Complete Letter.

Memo for SAF/AQ, C-17 Reprogramming

Chapter 12, CPR checklist

Dec 90 CPR

Last 3 months of SPO and DPRO analysis of CPRs

Various Modification Buyers files

C-17 CDRLs requiring DD250s

Unit cost of C-17 in President's FY92 budget Price and ceiling of Lots I and II and award

date

SUMMARY OF OVERSIGHT: First looked at whether the monthly CPR analysis differs from the monthly EAC evaluation. Also are asking questions in the area of how the SPO reviews CPRs and how they review the EACs. Various questions in relation to T-1 Assembly. On 3 Jul 91 the SPO was notified of the expanded scope of the audit

OVERSIGHT AGENCY: DODIG DATE: 22 MAR 91 -

SUBJECT: Audit of Reasonableness of Prices Paid for Purchased

Parts at DAC

MANHOURS: 0

STATUS: Open

REASON FOR OVERSIGHT: The objective of the audit will be to determine whether DoD is paying fair and reasonable prices for purchased parts on prime contracts with DAC. The audit will determine whether DAC of DoD have performed adequate analyses of purchased parts costs for DoD contracting officers to negotiate reasonable prices and whether DAC's accounting system is accurately charging purchased parts to DoD incentive contracts. Also will look at applicable internal controls.

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: Just began. No information yet.

OVERSIGHT AGENCY: DODIG DATE: 24 APR 91 -

SUBJECT: Audit of Maintenance and Diagnostic Systems

MANHOURS: 0

STATUS: Open

REASON FOR OVERSIGHT: No notification letter in files

DATA REQUESTED: No data requested

SUMMARY OF OVERSIGHT: No information in file on oversight at

this time.

OVERSIGHT AGENCY: GAO DATE: 19 FEB 86 -

1 MAY 86

SUBJECT: Review of C-17 program RDT&E budget execution and

preparation process

MANHOURS: 7

STATUS: CLOSED - NO FINAL REPORT

REASON FOR OVERSIGHT: Reconciliation of Douglas AC Corp. limit

of gov't obligation

DATA REQUESTED: RDT&E budget for FY87

Weapon System Budget estimate for RDT&E (fm

1537)

SUMMARY OF OVERSIGHT: required documentation was reviewed by

oversight agency. NO report issued.

OVERSIGHT AGENCY: GAO DATE: 15 APR 86 -

1 DEC 36

SUBJECT: Overall acquisition of C-17 aircraft

MANHOURS: 61

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Determine the justification of the

program, i.e., is the acq. of C-17

necessary?

Congressional request assignment House Armed Services Committee

DATA REQUESTED: Breakout of \$4.1 billion RDT&E using 31 Dec

'85 contract

CFE by major element

Relate performance requirements with the C-17

and the C-17 contract system spec.

requirements

Cost impact due to a full production rate

decrease to 21 AC/year

Methodology for Life Cycle Cost from 24 AC to

21

C-5 Enhanced Capability Test Report

HQ MAC-published C-17 information pamphlet C-17 Cost Estimate Documentation (Bluebook) Acquisition cost information supporting the

Airlift Master Plan

Decision coordinating paper for C-17 AC system

Congressional proposed report language

C-17 Milestone IIIA review

SUMMARY OF OVERSIGHT: The investigation evaluated the Air Force's analysis leading to its decision to develop and produce the C-17 aircraft, rather than buy additional C-5 aircraft, to reach its long-range airlift goal. The report discusses airlift requirements and capabilities, the alternative considered to alleviate the airlift shortfall, the criteria and assumptions used by the Air Force to evaluate the alternatives, and GAO evaluation of the Air Force's analysis.

OVERSIGHT AGENCY: GAO DATE: 5 MAR 91 -

SUBJECT: Impact of reduction in usage of chloroflourocarbons

MANHOURS: 25

STATUS: OPEN

REASON FOR OVERSIGHT: Congressional request - Chairman John

Dingell, Subcommittee on Oversight and Investigations, House Committee on Energy and Commerce. Brought about by Navy and AF officials expressed concerns

over the phasing out of

chloroflourocarbons and Halons within

DoD.

DATA REQUESTED: Volume of OLDS that plan to be used throughout

the life of the C-17

SUMMARY OF OVERSIGHT: It attempted to identify those substances harmful to the ozone layer and potential substitutions for those chemicals.

OVERSIGHT AGENCY: GAO DATE: 2 OCT 86 -

17 JUL 87

SUBJECT: Review of C-17 aircraft wing competition

MANHOURS: 37

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Congressional request - House Armed

Services McDonnell Douglas decided to compete rather than make in house.

Therefore, Congress wants a cost savings

resulting from competition and an

assessment on the fairness of the comp.

DATA REQUESTED: SPO review of RFP for Wing components

Make/buy plan

DAC control procedure/standard practice

regulations

Request for supplier proposals Source evaluation and selection Bid evaluation and source selection

Supplier survey and reviews

Source selection

Service and supply contracts

SPO guide to DAC's C-17 wing make/buy plan DAC source selection procedures briefing

DAC C-17 wing make/buy drawing

Wing competition savings eval - Difference

between Spo estimates and GAO est.

Report on C-17 Wing Competition

SUMMARY OF OVERSIGHT: Douglas held a fair and adequate

competition for the C-17 wing components

AF savings estimate was too high

list and the RFP

No change in cost price or profit

OVERSIGHT AGENCY: GAO DATE: 18 JUN 87 -

13 JUN 88

SUBJECT: Geographic dispersion of major weapon sys contracts

- Congressional district in which work is being

perf.

MANHOURS: 7

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: Congressional request

Rep Wayne Owens

DATA REQUESTED: C-5B Contract information

C-17A Contract information

SUMMARY OF OVERSIGHT: Looked at the geographical distribution

of subcontract dollars and determine what amount of information could be made

available. Contractor requests none

because the contract was very

competitive and therefore sensitive. The report gives the dollar value of the prime and subcontractor contracts, the

congressional district where the

subcontractor is perfoming the contract work, and whether competition was used in selecting the prime contractors and

subcontractors.

OVERSIGHT AGENCY: GAO DATE: 26 FEB 87 ~

23 APR 87

SUBJECT: FY 88 Budget review 3010 money

AC procurement budget preparation and execution

process

MANHOURS: 1

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Folder had not stated the exact reason for the review. It was directed from a Congressional request.

DATA REQUESTED: 1537s suppporting FY87 and 88 Presidential

budg.

Budget track and accounting status

Forecast of planned use to obligate funds

Deviation reports

Gramm-Rudman reductions in 87 budget process

reprogramming actions since Jan 86.

List of events that will impact budget in 88

Copy of supporting program status by

organization Report for each system/subsystem and copy of most Recent AFSC Fm 2444, program

redirection for FY85 - FY87

Dates of most recent cost est. or completion

for any process

SUMMARY OF OVERSIGHT: The oversight review the different areas within the budget estimates. The above documents were reviewed extensively.

OVERSIGHT AGENCY: GAO DATE: 28 AUG 87 -

27 SEP 89

SUBJECT: Survey of DoD management of warranties

MANHOURS: 4

STATUS: Closed - Final Report issued

REASON FOR OVERSIGHT: OSD directed. Are the Congressional laws of 83 and 84 effective in determining necessity of a warranty (Cost effectiveness analysis) and is it effectively being administered (system to accomplish).

DATA REQUESTED: Number of warranties and prices of each
Types of warranties and equipment covered
Expiration dates
Number, dollar volume and background of claims
pending, paid and rejected
Policies, regulations, instructions and other

guidance in place and organizational

frameworks

SUMMARY OF OVERSIGHT: Consolidated from different services to determine if the legislation in 84 is effective. 1. in the adminstration of the legislation and 2. in the analysis to determine if the warranty is cost effective. GAO found that OSD is not actively overseeing warranty admin. and also found that Waivers of warranty law rqmts generally aren't being sought. Cost effectiveness analysis is not good.

OVERSIGHT AGENCY: GAO DATE: 4 FEB 88 -

24 AUG 88

SUBJECT: Exam of AF financial statements for FY88

Part of a larger report on AF financial ops

MANHOURS: 3

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: GAOs long-term goal of fostering the development of more efficient and effectrive financial management systems ability to effectively support both managerial decisionmaking and credible financial reporting.

DATA REQUESTED: 1987 annual estimate briefing

Function Statements from the March 87 PMP

Program Control briefing detailing

responsibilities of formulation and execution branches as well as the plans and integration

division

Sources and uses internal document

Deviation report

SUMMARY OF OVERSIGHT: Interested in the financial management systems which C-17 used in the program ofice to perform their functions. C-17 reviewed what their program control roles and responsibilities were, their mission, and the nature of their products. GAO was interested in the formats and forms for responsibility areas.

OVERSIGHT AGENCY: GAO DATE: 18 FEB 87 -

6 DEC 90

SUBJECT: AF's progress in meeting C-17 Cost, sched, and perf.

goals

MANHOURS: 187.5

STATUS: closed - Follow up report issued

REASON FOR OVERSIGHT: Provide Congress with the program's

overall status

Committee on Armed Services (H&S)

Subcommittee on Defense (S)

Committee on Appropriations (H&S)

DATA REQUESTED: C-17 LCC estimates FY87\$, FY88\$, TY\$

OBIGGS/C-17PMD 6APR 84, fm 56, 23 AUG84

SAR - 31 DEC 84 SAR - 31 DEC 83

DOD Instruction 7000.3, 17 APR 86 Pages in C-17A Annual Est. for 87 84 System Threat Assessment Report

C-17 PMD - 16 JUN 88

C-17 PRR

List continues to over 100 documents

SUMMARY OF OVERSIGHT: The Air Force's acquisition strrategy for the C-17 program is based on a DOD goal to achieve an airlift capability of 66 million ton-miles per day by the year 2000. The program's schedule and planned procurement rates have been established to meet this goal. First flight is currently planned for August 1990, initial operational capability is estimated for September 1992, and a peak procurement rate of 29 AC per year is planned to begin in FY93.

As the C-17 transitions form dev to concurrent dev and lrip, the program faces significant schedule, cost and performance challenges. Delays in the avionics development and aircraft assembly schedules have make it unlikely that the C-17s first flight date will be met. This, in turn, will delay the start of the flight test program. Estimated program

acquisition costs are increasing, but the extent of estimate cost growth will not be known until estimates can be made based on actual cost data from the mfr. of the dev and first production aircraft. C-17 costs reported to the congress don't include costs associated with defensive systems planned for the aircraft. In addition, Douglas AC Company and the Air Force are working to control the C-17s weight growth before it degrades requrirements for AC range and payload.

OVERSIGHT AGENCY: GAO DATE: 17 DEC 87 -

2 AUG 38

SUBJECT: Review of Major Weapon Systems

MANHOURS: 23

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Committee on Armed Services - Review of 23 defense acquisition programs. Provide current information on each program's requirements, schedule, performance cost and funding support. Programs the committee may consider for milestone authorization in 89 and 90.

DATA REQUESTED: Many different cost schedule and performance documents.

SUMMARY OF OVERSIGHT: I see many of the same questions being asked for this inquiry as was asked in 7D3-2-12 "AF'S PROGRESS IN MEETING C-17 COST SCHEDULE AND PERFORMANCE GOALS". It gives a status much like was given in the previously mentioned report.

OVERSIGHT AGENCY: GAO DATE: 19 FEB 88 -

28 APR 89

SUBJECT: Audit to minimize the generation of hazardous waste

MANHOURS: 3

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Committee on Appropriations (H)

Subcommittee on Environment, Energy and

Natural Resources

Request to evaluate the DOD efforts to minimize the generation of hazardous

waste

DATA REQUESTED: LSA process to review hazardous waste

Contract and ILSP DD1949-1

SUMMARY OF OVERSIGHT: Looked at 3 areas to reduce:

Changes to production, repair, and

maint. processes

Substitution of less hazardous materials for hazardous materials Changes to technical documents that allow substitutions of less hazardous

materials

Found that implementation varies. AF specifically directed the study of

substituting materials.

OVERSIGHT AGENCY: GAO DATE: 9 MAR 88 -

17 MAY 88

SUBJECT: FY 89 A/C Procurement, AF Appn request

MANHOURS: 21.5

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: How the estimates are derived, whether

they present reasonably the financial needs of the AF and how execution of prior year funding compares with planned

expenditures

DATA REQUESTED: FY87-88 fm 2444 (3010 and 3600)

C-17 Program budget track (FY87-88 3010 and

3600)

DACs narratives to summary program master

schedule and Program master schedules

SPO Org. chart

SUMMARY OF OVERSIGHT: Conducted a budget scrub of the C-17 including FY86-88 and the FY89 budget submission for both R&D and production. It is included in a report that will contain the same info from C-5,F-16 engine spo, and AFLC. Used to brief committees.

OVERSIGHT AGENCY: GAO DATE: 18 MAY 88 -

10 JUN 38

SUBJECT: Rev of DODs efforts to max use of Non-developmental

items

MANHOURS: 12

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: To determine if the AF is using commercial off-the-shelf equipment to the max extent possible. Report will be addressed to the Armed Services Committees (H&S)

DATA REQUESTED: List of off-the-shelf equipment (major

subsystems)

Air vehicle hardware and support equipment

SUMMARY OF OVERSIGHT: Conducting a review of "non-developmental Items(NDI) used in Defense Procurement." GAO will report to Congress in OCT 88 concerning DODs actions to implement Public Law 99-591. SPO quere DAC for a list of off-the-shelf commercial equipment.

OVERSIGHT AGENCY: GAO DATE: 23 FEB 88 -

24 MAY 88

SUBJECT: Survey of A/C engine R&D programs

MANHOURS: 1.5

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: Chairman of the House Armed Services Committee has requested GAO to survey all aircraft engine R&D programs. Purpose is to (1) Identify the magnitude of engine development and upgrade programs and (2) Identify trends of funding from fiscal year 1984 through 1988.

DATA REQUESTED: FY84-88 FSD Obligations and Exhplanations

SUMMARY OF OVERSIGHT: The information provided above is in support of a survey to the HASC (reason section above)

OVERSIGHT AGENCY: GAO DATE: 23 SEP 88 -

1 NOV 89

SUBJECT: DOD implementation of Packard Commission

recommendations regarding acquisition personnel reform

MANHOURS: 33

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: Congressional reqrest. Compare the Acquisition process before and after the implementation of the Packard Commission recommendations

DATA REQUESTED: Number of reports issued 1 SEP 86 - 31 AUG 87

and form 1 SEP 87 - 31 AUG 88

SAR (DEC 87)

Program Baseline (FEB 87)

Acq Information Management Report (Oct 88)

DAES Report (OCT 88)

SUMMARY OF OVERSIGHT: Many questions were directed to Gen Butchko. They were designed to help the GAO understand the acquisition process as it relates to the C-17. Specifically, does the GAO and DODIG have beneficial impacts on AF procurement. Response: generally the audit reports indicate a lack of understanding of the program. Often, auditors must get smart on the program at the expense of SPO personnel (i.e., SPO personnel must take time from work to accommodate the auditor). Work load has also generally stayed the same. In fact, briefings have increased. In looking at the documents, many have been waived because C-17 is under the Defense Enterprise Program. Gen Butchko went on to state that he questioned the value of all the outside reviews to which the SPO has become subject, and cited recent reviews by the GAO, DODIG, and AFAA in addition to upcoming inspection by AFSCIG.

OVERSIGHT AGENCY: GAO DATE: 14 APR 89 -

28 JUN 89

SUBJECT: FY90 Budget Review

MANHOURS: 1.5

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: Begin work on the FY90 A/C procurement budget request. Will address: (1) contract costs for selected weapon systems, (2) unobligated balances, and (3) initial spare parts.

Results will be provided to the Committees on Appropriations, and Subcommittee on Defense

DATA REQUESTED: 1537s supporting FY89 and FY90 Presidents

budgets

Budget track/acctng status

Forecast of planned use of unobligated funds as of FEB 89 and dey dates and events necessary

to obligate these funds

Deviation reports

Reprogramming actions since Jan 88

Contracts for FY89 program awarded after the

FY90 budget submission for a lower than

anticipated price

Change in program plans

Change in lot sizes

List of schedule slippages and impact on

system/sub dev problems that delay production

or integration

Long lead times for advanced procurement

How changes reflected in the current budget

How they effect non-recurring items List continues to over 100 documents

SUMMARY OF OVERSIGHT: Investigated what was covered in the "Reason for Oversight" section. There were no findings or recommendations. I also saw no outbrief.

OVERSIGHT AGENCY: GAO DATE: 22 JUN 89 -

8 AUG 89

SUBJECT: DOD Early operational assessment of weapon systems

MANHOURS: 4

STATUS: Closed - no report issued

REASON FOR OVERSIGHT: Self initiated (not by congress). Evaluate the DoD's performance of early operational assessments for use in making acquisition decisions on major weapon systems. Specifically GAO determined whether operational assessments

Diminish planned operational test and evaluation

Form an acceptable substitution for actual

operational testing

Provide a sufficient base to support major

milestone decisions.

DATA REQUESTED: PMP

TEMP

Program Structure

Flt Test Schedule charts

Portion of basic Civic briefing

SPO organizational chart

SUMMARY OF OVERSIGHT: No real findings or recommendations. In fact there is no record of a close out letter. It is only seen as closed out when it is referenced in a later inspection.

OVERSIGHT AGENCY: GAO DATE: 29 AUG 89 -

20 SEP 89

SUBJECT: Survey of DoD's policy on special tooling and test

equip

MANHOURS: 7

STATUS: Closed - No report issued

REASON FOR OVERSIGHT: Defense Appropriation Act for

Capitalization of Tooling and Test Equipment Determine which method of reimbursement for special tooling and test equipment (SSTE) is most equitable

to the govt and contractor

Examine provisions for ownership of SSTE Examine the retention and storage of SSTE

Examine procedures and practices for

defining and classifying assets as SSTE

DATA REQUESTED: Initial delivery schedule dated FEB 84 (thru

p - 32)

Current baseline delivery schedule (MAR 87)

Delivery dates of aircraft currently on

contract

CPR showing tooling

SUMMARY OF OVERSIGHT: Looked at the various funding issues regarding SSTE. For example, questions such as Why the STTE was included in the R&D contract and not in production. The response was that the C-17 was directed by Congress to include the STTE in the R&D contract. Also looked at capitalization of STTE versus not capitalizing the equipment

OVERSIGHT AGENCY: GAO DATE: 7 SEP 89 -

5 APR 91

SUBJECT: Survey of C-17 Research and Development costs

MANHOURS: 127.75

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: The Chairman, subcommittee on Projection
Forces and Regional Defense, Senate
Armed Services Committee tasking
(Senator Kennedy) to identify the cost
elements of the C-17 research and
development program and to provide
information on the complexity of C-17
systems and structures
maintain information on the basis of the
estimate and the results of prior
efforts to address the reasonableness of
the C-17s R&D
costs. (C-5A,B-1B,C-141,C-130,KC-10)

DATA REQUESTED: Selected 1988 C-17 annual est. briefing charts Volume IV of 1988 C-17 annual est. (complexity/efficiency studies) June 89 Production/FSED CPRs June 89 production/FSED CPR SPO analysis 85 C-17 annual est. (FSD section plus engineering detail) Price negotiation memo, C-X program DCAA audit report , 8 Apr 81, DAC RFP response Index of contract modifications **Breakout of Presidents budget - by major cost element Latest C-17 1537s (VOL II 88est.) Documentation sent to support PB that goes to Congress(89 B) SS stds. SSEB final briefing

Briefing to SEC AF

DAC BAFO

Audit report
Independent cost analysis Funds status and production
CFE breakout of R&D approved program C-17 T&E master plan Many different CCPs and ECPs
Senate Appropriations Bill tooling language
Senate Appropriations Conference General
Tooling Language
Senate Appropriations Conference C-17 Language

SUMMARY OF OVERSIGHT: Staffers think it is a low risk program and wonder why R&D is so high. Gen Butchko response: It is low risk relative to the B-2, and Congress required tooling be included in R&D hence the \$5B.

Gen Butchko asked why Congress required so much detail and GAO response: Congress wants an overall understanding of the C-17 program.

Gen Butchko then stated that at times it appears there is no communication between oversight agencies (AFAA, GAO, AF IG, DODIG, etc...) He feels there is too much similarity of audit topics from one agency to another. GAO response: GAO sends out letters to the other agencies when starting a new audit topic to alert them of the subject area being reviewed.

Again, looked a great deal at the comparison between requirements in this program with those of existing cargo A/C and commercial DC-10. Durability, corrosion, and support structure necessary for 30 yrs were seen as differences.

Asking many of the same questions over again (previously discussed at earlier visits) on differences from the DC-10. Why the increases in manhours etc... was it because of the complexity differences. Response: differences were underestimated

GAO states that the final report will read that the plan is NOT complex in the individual components, but DAC is having a tough time with the integration of various state of the art tech. Discussed LAPES (low altitude parachute extraction system). Neither the C-141 or C-5 have LAPES capability.

OVERSIGHT AGENCY: GAO DATE: 6 Nov 89 -

1 DEC 90

SUBJECT: Review of DOD's weapon production rates

MANHOURS: 9

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: Examine weapon systems to determine cost impact of those being procured at uneconomical rates, ID potential savings and budget impacts of producing at higher more economical rates and ID potential costs at various levels of production

Chairman Committee on Appropriations (S) Chairman, Subcommittee on Defense Committee on Appropriations (S)

DATA REQUESTED: Answering various questions related to production rates

SUMMARY OF OVERSIGHT: Discussed the different production rates and impact of each. Looked at the sensitivity of estimated procurement costs of selected military aircraft programs to reductions in numbers of A/C purchased per year. Not much in the GAO report - general conclusion was that as the procurement numbers decreased the unit price increased.

OVERSIGHT AGENCY: GAO DATE: 8 SEP 89 -

27 AUG 90

SUBJECT: Survey of Defense Oversight of embedded computer

systems

MANHOURS: 3.25

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: Hon John Conyers, Jr. Chairman,

Legislation and National Security Subcommittee Committee on Government

Operations (H)

Hon Frank Horton Ranking Minority Member, Legislation and National Security Subcommittee Committee on

Government Operations (H)

A May 18, 1989 letter expressed concern

about the DOD mgt process for controlling the development and acquisition of embedded computer

resources - computer software
What policies and procedures govern the
development and acquisition of embedded
computer systems and how the Office of
the Secretary of Defense's oversight
process controls requirements, assures

adequate testing, and minimizes the costs and risks associated with these systems.

DATA REQUESTED: Computer resources lifecycle management plans Appropriate status and cost reporting document,

i.e., Development status report CSSR etc...

Software development plans

Number of software components per cpci

SUMMARY OF OVERSIGHT: Basically what has previously been discussed. Oversight is imperative to the development of

computer res. embedded in todays weaponry. Oversight is appropriate today in this environment

OVERSIGHT AGENCY: GAO DATE: 28 SEP 89

SUBJECT: Management Controls of Contingent Liabilities

MANHOURS: 2

STATUS: OPEN

REASON FOR OVERSIGHT: No reason presented in the oversight

folder

There is a reason it just isn't stated

DATA REQUESTED: All contingent liability commitments exceeding \$.5M and citing FY87, 88, and/or 89 budget

authority

All contingent liabilities of \$.5M or more included in C-17 SPOs FY 91/92 budget request. For the above copies of associated contract contingent liability attachments and/or

clauses

For the above copies provide the 1537, p-34, or other doc. to evidence contingent liability

amounts budgeted for FY91/92.

Award Fee doc for C-17

Commitment documents (ACDs)

Obligation Doc through Award Fee Period 4

SUMMARY OF OVERSIGHT: All award fees for the C-17 have been committed and obligated prior to funds expiration. Therefore, it has not been necessary to code the ACDs referenced as contingent liabilities in the official accounting records for retention of these commitments after the funds expire. Work is continuing.

OVERSIGHT AGENCY: GAO DATE: 24 APR 90 -

21 DEC 90

SUBJECT: Review of the Air Forces FY91 budget request

MANHOURS: 29.5

STATUS: Closed - Final report issued

REASON FOR OVERSIGHT: Hon Daniel Inouye Chairman, Subcommittee on Defense, Committee on Appropriations

(S)

Hon John Murtha Chairman, Subcommittee on Defense, Committee on Appropriations

(H)

Identify potential reductions to the FY91 budget request and potential rescissions

to prior year appropriations.

DATA REQUESTED: 88 Annual estimate - Obligation forecast for

FY90

Impact of reducing number of A/C from 6 to 2

January CPR PMD (10 May 89) EPA Clause

SAR (31 DEC 89)

Summary program master schedule (25 FEB 90) Program Status by organization (31 MAR 90)

SUMMARY OF OVERSIGHT: Reviewed the AF's FY 91 A/C procurement budget request. Because of continuing schedule delays under the existing contracts and the significant amount of unobligated prior year appropriations, \$2,146 M of the FY91 budget request to be considered for reduction. AF stated that even though no A/C will be purchased in FY90 there will still need to be money to support critical subs. to continue work on the effort. Many delays in schedule(first flight), total cost (37.5 to 41.8) has cause the GAO to recommend these cuts.

OVERSIGHT AGENCY: GAO DATE: 15 AUG 89 -

1 AUG 90

SUBJECT: Survey of C-17 near-term production goals

MANHOURS: 284.25

STATUS: Closed - final report issued

REASON FOR OVERSIGHT: SELF INITIATED --- Evaluate the DoD assessment of the C-17 production schedule given current and anticipated budget constraints. Identify those areas and issues that affect McDonnell Douglas ability to assemble, deliver, and test the development aircraft and the first stable design by the fifth production aircraft. Specifically: assembly problems such as late tooling and parts delivery, assembly schedule compression, labor shortages and excessive overtime - mission computer software dev probl - electronic flight control system software and hardware dev negative impact avionics dev

DATA REQUESTED:

YCP budget formulation/execution flow chart YCP FY89 FSED/Production financial plans 88 C-17 Annual est volume I & II YCP funding track 88 annual est to FY90/91 President budget C-17 forward financing waivers (FY87-89) FY89 FSED/Production budget authorization doc and BA track FY89 FSED FSED/Production funding track FY89 FSED/Production forecast/financial plan/Fm1537 track C-17 A&F monthly stat run for FY89 YCP FY90 FSED preliminary financial plan OSD table of obligation/expenditure rate goals YCK LOGO letter 17 APR 89 and DAC contracts acceptance of USAF LOGO 8 May 89 Rqmts review charts AEMR (SEP 89-Feb 90) Production and DSED CPRs and SPO analyses Gen Johnson testimony App E to 88 annual est Updated chart on Congressional activity P-series document (P-5) form F"Y90 Presidents

Budget submission C-17 financial plan, 1 Jun 89 Excerpt from AFR 170-13 CPR & analyses, Jul - Nov 89 Appropriation amounts up through FY 90

SUMMARY OF OVERSIGHT: Impacts of the FY90 Congressional cut (HAC) IOC slip and increased total program cost

(SASC) 3010 IOC slip cost increase
" 3600 deleted live fire test and
LSA Looked at overall program progress,
the avionics integration process, the
change in Electronic Flight Control
integration risk, and a description of
actions DAC has taken in the avionics
area to move form the red team schedule
to the recovery schedule (GAO wants to
learn more about the avionics process
itself).

GAO produced own schedule based on the information SPO provided.
The final report begins, this report

provided information on the AF progress in dev and acq 211 C-17 A/C. Found that the program currently faces increased concurrency and continuing schedule. cost, and performance problems. Acq costs increasing the C-17s first flight date has slipped further than

flight date has slipped further than orig. anticipated and the projected weight of the aircraft still adversely impacts performance. Many of the same findings as before. Also gives history relation to program performance.

OVERSIGHT AGENCY: GAO DATE: 21 March 90 -

SUBJECT: Review of C-17 Major aircraft review study

assumptions, data, and conclusions

MANHOURS: .5

STATUS: OPEN

REASON FOR OVERSIGHT: Congressional request (not specific)

Evaluate the study assumptions, data, and conclusions in the DOD major aircraft review of the C-17. Also evaluate the mobility requirements for the C-17

DATA REQUESTED: Organizational chart

Phone roster

SUMMARY OF OVERSIGHT: Still open in the early stages. No real

findings yet.

OVERSIGHT AGENCY: GAO DATE: 15 OCT 90 -

SUBJECT: Survey of embedded computer software

MANHOURS: 92.75

STATUS: OPEN

REASON FOR OVERSIGHT: Requested by Congressman Conyer. The audit will survey the procedures employed in software dev. The committee was concerned that there wasn't enough emphasis placed on software dev. C-17 used as a sample item in the overall report

DATA REQUESTED: Org charts for the SPO Presidents budget SAR

PMP

PMD and Fm 56

TEMP CPTP CPDP

Risk mgt plan Risk analysis

List goes on and on - I recognize a great deal of the information as documents already provided to the GAO in previous reports

Background information concerning AFOTEC early

op assessment

Award Fee plans and evaluation relating to

software

YCEA work areas/assignments list C-17 Integrated Avionics Test Plan

SUMMARY OF OVERSIGHT: Is the SPO following the regulations set forth for software management? The areas are being studied but with no final report as of yet or conclusions drawn, I can only say the GAO is continuing the audit. Some software problems have been identified and the GAO is trying to determine if these problems could have been avoided by following the mil. std.

OVERSIGHT AGENCY: GAO DATE: 10 JAN 91 -

SUBJECT: Survey of C-17 cost estimates

MANHOURS: 30.75

STATUS: OPEN

REASON FOR OVERSIGHT: Driven by Aspin and Dingell hearings and the FY92 budget cycle. Evaluate various cost estimates for completing the dev contract and ID and evaluate contractor initiatives to resolve problems that have contributed to schedule slippages

and cost increases.

DATA REQUESTED: Lot II and Lot III delivery schedule
89 annual estimate briefing pertaining to the
chain of command briefed as well as the
specific ceiling calcs used for est

Funds status

Execution plan for 91

Reallocation of \$170k of sustaining engrng

costs CPR data

Different questions posed by GAO

Budget data

Production data - Metrics used by DAC Based on metrics is Prod

perf improving cost drivers? How to

control?

Flight test schedule

SUMMARY OF OVERSIGHT: Survey still on-going, but have looked at when chain of command notification occurred in regards to approaching and exceeding ceiling price. DAC's methodology for formulating their EAC vs the tools that the SPO uses. Looked at flight test activities

OVERSIGHT AGENCY: GAO DATE: 22 JAN 91

SUBJECT: Survey of production problems in Defense systems

MANHOURS: 0

STATUS: OPEN

REASON FOR OVERSIGHT: Initial identification of production problems on various weapon system procurement programs. GAO will investigate

DATA REQUESTED: No data thus far

SUMMARY OF OVERSIGHT: C-17 has only received a notification letter thus far.

OVERSIGHT AGENCY: GAO DATE: 7 DEC 90 -

SUBJECT: Information on DOD contract with McDonnell Douglas

MANHOURS: 11

STATUS: OPEN

REASON FOR OVERSIGHT: Doesn't state - No notification letter in

file

DATA REQUESTED: T-1 assembly complete memorandum

SUMMARY OF OVERSIGHT: Discussed the C-17 T-1 assembly complete memorandum of understanding in real detail as well as the SPO's plans for certifying this milestone is met. Also discussed the implementation of TQM at DAC. Still in early stages of survey. As a result, not much info.

Bibliography

Anthony, R.N. <u>Planning and Control Systems: A Framework for Analysis</u>, Boston: Harvard University, 1965.

Barlas, Stephen. "Bush Budget Stresses Tighter Financial Control," Internal Auditor, 24:8 (April 1990).

Canan, James W. "How About Some Breathing Room," <u>Air Force</u> Magazine, 73:62-65 (February 1990).

Daft, Richard L. Organizational Theory and Design. St. Paul: West Publishing Company, 1986.

"Defense Department Auditor uncovers \$789 million in contract overpricing," <u>Aviation Week and Space Technology</u>, <u>130</u>:89-90 (January 1989).

Department of Defense Directive 5000.1, "Defense Acquisition." February 23, 1991.

Department of Defense Directive 7600.52, August 7, 1978.

Dornheim, M.A. "Judge Fines Rockwell \$5.5 million for Double Billing," <u>Aviation Week and Space Technology</u>, <u>130</u>:24-25 (March 1989).

Fox, Ronald J. <u>Arming America</u>. Boston: Harvard University, 1984.

Gansler, Jacques S. <u>Affording Defense</u>. Cambridge: MIT Press. 1989.

Grant, Kevin P. Class handout distributed in SMGT 643, <u>Introduction to System Acquisition Management</u>. School of Systems and Logistics, Air Force Institute of Technology (AU). Wright-Patterson AFB OH, Winter Quarter 1991.

Gupta, Parveen. <u>Evolution of Operational Auditing</u>. Unpublished PhD dissertation. Pennsylvania State University PA, 1988.

Horngren, Charles T. and George Foster. <u>Cost Accounting: A Managerial Emphasis</u>. Englewood Cliffs: Prentice-Hall, Inc., 1987.

Marsh, Robert T. "Oversight is Overdone," <u>Air Force Magazine</u>, 69:63-65 (October 1986).

- Miles, Mathew B. and A. Michael Huberman. <u>Qualitative Data</u>
 <u>Analysis: A Sourcebook of New Methods</u>. Beverly Hills: SAGE
 Publications Ltd., 1984.
- Murphy, Paul L. "Constitution of the United States," Encyclopedia Americana. 221,659-670. Danbury: Grolier Incorporated, 1984.
- Oleszek, Walter L. <u>Congressional Procedures and the Policy</u> Process. 3rd Edition, New York: CQ Press, 1989.
- "Planning, Programming, and Budgeting System (PPBS)," The Program Manager's Notebook. Fort Belvoir: Fort Belvoir, 1983.
- Reed, William R. "Managing the Cost of Audit Quality,"

 <u>Association of Government Accountants Journal</u>, <u>81</u>: 21-26

 (October/November/December 1989).
- Rosen, Louis I. <u>Proposed Audit and Accounting Guide for Audits of Government Contracts</u>. New York: American Institute of Certified Public Accountants, 1987.
- Shishoff, Lt Col John W., Director, Graduate Programs. Personal Interview. Air Force Institute of Technology (AU), Wright-Patterson AFB OH, 5 April through 13 August 1991.
- Sperry, Roger L. "To Prevent Scandal: Oversight and Management," Government Executive, 22:59-60 (July 1990).
- U.S. Congress, <u>Department of Defense Office of Inspector</u> <u>General</u>. Public Law No. 97-252, 97th Congress, 1st Session. Washington DC: Government Printing Office, 1982.
- U.S. Congress. <u>Inspector General Act of 1978</u>. Public Law No. 95-452, 95th Congress, 1st Session. Washington DC: Government Printing Office, 1978.
- U.S. Congress, <u>Workshop on Congressional Oversight and Investigations</u>. House Document No. 96-217, 96th Congress, 1st Session. Washington DC: Government Printing Office, 1979.
- Yin, Robert K. <u>Case Study Research: Design and Methods</u>. Beverly Hills: SAGE Publications Ltd., 1984.

<u>Vita</u>

Captain Thaddeus G. Knue was born on 10 January, 1965 in Grand Haven, Michigan. He graduated from Spring Lake Jr/Sr High School in Spring Lake, Michigan in 1983 and attended the U.S. Air Force Academy, graduating with a Bachelor of Science in Management in May 1987. Upon graduation, he received a regular commission in the USAF and served his first tour of duty at Wright-Patterson AFB, Ohio. He began as a Program Manager in the Aeornautical Equipment System Program Office in Aeronautical Systems Division. He was directly responsible for the cost, schedule and performance of four vital aeronautical programs within the system program office, while establishing a liaison office within Headquarters Pacific Air Command. He was then chosen to serve as the Executive Officer to the Program Director of the Aeronautical Equipment System Program Office. He served in this position until entering the School of Systems and Logistics, Air Force Institute of Technology, in May 1990.

Permanent Address: 515 East River Street
Spring Lake, MI 49456

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway Suite 1204 Actington VA 22202-4302 and to the Office of Management and Budget. Paperwork Reduction Project (0704-0188) Washington, OC 20503.

| Davis Highway, Suite 1204, Arlington, VA 222 | 02-4302, and to the Office of Management and | Budget, Paperwork Reduction Project (0 | 704-0188), Washington, GC 20503. | | | | | |
|---|--|--|----------------------------------|--|--|--|--|--|
| 1. AGENCY USE ONLY (Leave bla | ink) 2. REPORT DATE | 3. REPORT TYPE AND D | ATES COVERED | | | | | |
| 4. TITLE AND SUBTITLE | | 15. | FUNDING NUMBERS | | | | | |
| | THIN THE DEPARIMENT OF | T - | TORBATO HOMELIA | | | | | |
| | | DEFENSE: | | | | | | |
| IS IT BECOMING COUN | IERPRODUCTIVE? | | | | | | | |
| 6. AUTHOR(S) | | | | | | | | |
| | • | Í | | | | | | |
| Thaddeus G. Knue, C | | | | | | | | |
| 7. PERFORMING ORGANIZATION I | | PERFORMING ORGANIZATION | | | | | | |
| | l | REPORT NUMBER | | | | | | |
| Air Force Institute | OH 45433-6583 A | FIT/GSM/LSG/91S-16 | | | | | | |
| 121 10100 | | 2 - 1 / 02 / 2 0 / 3 2 10 | | | | | | |
| | | | | | | | | |
| | | İ | | | | | | |
| 9 SPONSORING / MONITORING A | GENCY NAME(S) AND ADDRESS(ES | 10 | SPONSORING MONITORING | | | | | |
| S. SPONSONING/MONITORING AC | JENCT MAINIELS) AND ADDRESSIES | , 10. | AGENCY REPORT NUMBER | | | | | |
| | | 1 | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 11. SUPPLEMENTARY NOTES | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 43- 01670101171031 (411411 4 01117) | CTATEBOOK | | b. DISTRIBUTION CODE | | | | | |
| 12a. DISTRIBUTION / AVAILABILITY | STATEMENT | 121 | D. DISTRIBUTION CODE | | | | | |
| | | 1 | | | | | | |
| | | J | | | | | | |
| Approved for public | release; distribution | unlimited | | | | | | |
| | , | | | | | | | |
| | 1 | | | | | | | |
| 13. ABSTRACT (Maximum 200 wor | ds | | | | | | | |
| · | | thin the Department | of Defense (DoD) has | | | | | |
| become so intense and | detailed that the per | | | | | | | |
| | | | | | | | | |
| oversight is now detracting from the ability of system program offices (SPO) to focus on fielding new weapon systems which achieve the government's requirements of | | | | | | | | |
| | | | | | | | | |
| periormance, schedule | , and cost. This stud | y researched this a | ssertion by exploring | | | | | |
| | | | through a single unique | | | | | |
| case study of the C-l | 7 SPO. The three sour | ces utilized in gat | hering and analyzing | | | | | |
| data were archival re | cords, interviews, and | documents. Data q | athered indicated | | | | | |
| oversight has been perceived to have become counterproductive in three areas; overlap | | | | | | | | |
| in scope, duplication in data requests (oral and written), and overall excessiveness. | | | | | | | | |
| The C-17 SPO has expended 2,035 manhours in response to 72 agency actions. Overlap | | | | | | | | |
| in some or diplication | on in data nominate of | response to 12 age | 72 actions. Overlap | | | | | |
| m scope or adprecact | on in data requests oc | curred in 25 or the | 12 accions. | | | | | |
| | | | · ' ' ! | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 14. SUBJECT TERMS | | | 15. NUMBER OF PAGES | | | | | |
| Oversight / Congress | 191 | | | | | | | |
| -Acquisition, Program | 16. PRICE CODE | | | | | | | |
| Tangustudi, Friograf | m ranagement, Audit, in | inspectron 🚓 | | | | | | |
| 17 (50) 10174 (1) 10174 | to escupia el accimica acci | 140 SECTIONAL CLASSICION | ON 20 LINGTATION OF AGGES | | | | | |
| 17. SECURITY CLASSIFICATION OF REPORT | 18. SECURITY CLASSIFICATION OF THIS PAGE | 19. SECURITY CLASSIFICATI OF ABSTRACT | ON 20. LIMITATION OF ABSTRACT | | | | | |
| Unclassified | Unclassified | Unclassified | UL | | | | | |

AFIT RESEARCH ASSESSMENT

The purpose of this questionnaire is to determine the potential for current and future applications of AFIT thesis research. Please return completed questionnaires to: AFIT/LSC, Wright-Patterson AFB OH 45433-6583.

| 1. | Did | this | researc | h co | ntri | ibute | to a | curre | nt re | search | projec | t? | |
|---|------------------------|------------------------------------|----------------------------------|-----------------------|--------------------|--------------------------|------------------------|---------------------------|---------------------------------|-----------------------------------|-----------------------------|--------------------------------|---|
| | a. | Yes | | | b. | No | | | | | | | |
| 2. Do you believe this research topic is significant enough that it would have been researched (or contracted) by your organization or another agency if AFIT had not researched it? | | | | | | | | | | | | | |
| | a. | Yes | | | b. | No | | | | | | | |
| 3. The benefits of AFIT research can often be expressed by the equivalent value that your agency received by virtue of AFIT performing the research. Please estimate what this research would have cost in terms of manpower and/or dollars if it had been accomplished under contract or if it had been done in-house. | | | | | | | | | | | | | |
| | . 1 | Man Ye | ears | | | | | | \$ | | | | - |
| rese When | earch ther earch | n, ali or no n (3 a Highl | is not though to you was above), | the r vere what | esul able is | lts of e to e your | f the estab esti | resea lish a mate o | rch m n equ f its Slig | ay, in ivalen signi htly | fact, t value ficance | be importate for this ? Of No | |
| 5. | Comm | nents | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| Name | e and | Grad | ie | | | | | Org | aniza | tion | | | |
| Pos | ition | n or | litle | | | <u> </u> | | Ada | ress | | | | |